THE CULTIVATOR.

NEW "TO IMPROVE THE SOIL AND THE MIND." SERIES.

VOL. I. ALBANY, JANUARY, 1844. No. 1.

THE CULTIVATOR

Is published on the first of each month, at Albany, N. Y., by LUTHER TUCKER, PROPRIETOR.

WILLIS GAYLORD AND LUTHER TUCKER, EDITORS.

ONE DOLLAR A YEAR.

SEVEN copies for $5,00—FIFTEEN copies for $10,00—all payments to be made in advance, and free of postage.

☞ Complete sets of the *First Series* of "THE CULTIVATOR," consisting of ten vols., quarto, are for sale at the office, and may be ordered through the Agents of the paper throughout the country. Price, stitched,—vols. 1, 3, 3 and 4, 50 cents each—vols. 5, 6, 7, 8, 9 and 10, $1,00 each—for the whole set, $8,00.

OFFICE IN NEW-YORK CITY, AT
M. H. NEWMAN'S BOOKSTORE, No. 199 BROADWAY,
where single numbers, or complete sets of the back volumes, can always be obtained.

☞ This paper is subject to newspaper postage only, being one cent within the state or within 100 miles of Albany, and 1½ cent for any greater distance.

THE FARMER'S MUSEUM,

(*Each no. containing 16 pages,*)

Is made up of selections from this paper, and published monthly at 50 cents a year—Fourteen copies for $5,00—Thirty copies for $10.

THE CULTIVATOR.

TO THE PATRONS OF THE CULTIVATOR AND MUSEUM.

CUSTOM permits us (and the permission in this case is in perfect consonance with our inclination,) the privilege of addressing, at the opening of a new year and a new volume, the friends and patrons of our journal. We wish to seat ourselves by their social fireside, and embrace the occasion to exchange with them our cordial gratulations, and indulge in a free intercourse of feelings, interests and prospects. We wish to speak to such, as we consider them, as co-laborers and friends; and in addressing whom, we feel assured that our gratulations and kind wishes will be fully reciprocated.

With the past, we are acquainted; the future is yet before us, and unknown; but you will permit us to say, that in looking back over our editorial career since we engaged in the cause of agriculture, we feel a great pleasure in the consciousness of having, in the main, succeeded in our efforts, and in finding the most unquestionable evidence that our labors have been kindly received, and our efforts welcomed by those whom we have endeavored to benefit. We have endeavored, to the best of our ability, to place before our thousands of readers, topics which would interest, which would rouse to emulation and effort, and guide those efforts to a successful issue. Believing as we do, that every man is responsible to the public for the manner in which he manages the property of which a kind Providence has made him the steward, we have been anxious that our farmers should understand their privileges and their true position, and act accordingly. Every man exercises an important influence in society, and he should feel that, as he wields this influence for good or ill, so his existence will be a blessing or a curse to the community. We have been anxious to convince all, that knowledge—knowledge of mankind, of himself, and in particular of his professed business, was essential to success in any pursuit, and that ignorance and successful agriculture were incompatible. We have endeavored to enforce the necessity of industry, and to show that honest labor can never be disreputable: On the contrary, the only honorable man is he who earns his own bread by honest industry in some useful pursuit. Industry is a blessing, not a curse. God ordained that with the sweat of our brow we should earn and eat our bread, but he has wisely ordered that from this necessary industry shall flow our choicest blessings. To be satisfied of this, we have only to compare the situation, intellectual, physical, and moral, of those who reside where nature spontaneously produces all that is required to support life, with that of those who in less genial climes are forced to labor for their bread. The former must always succumb to the latter; one does but vegetate, the other lives.

As farmers, we have abundant cause for congratulating each other; not that the crops of the past year have been excessive, but because they have been abundant and good; not that prices have run up to the inflated height they reached a few years since, but because they have greatly improved since that disastrous reaction, are firm, and generally remunerating. The resources of our noble country are every year more and more developing themselves. Spreading over such a vast extent of country embracing so many varieties of soil and climate, partial failures of crops may indeed occur, but such a failure as shall seriously affect the aggregate amount, or endanger the bread of the nation, is scarcely possible. Providence seems to have placed our destinies in our own hands; on our faithful discharge of devolved duties, all is depending. It is in the power of the farmers of this land to convert it into one vast garden, to make it the granary of the world. Let us see that while prosperity advances, the mind does not suffer; that while riches increase, the man, the immortal, is not neglected.

With the favor with which our agricultural publications have been received, we have every reason to feel gratified: and while we continue in good faith and untiring zeal to present the farmers of our country such a journal as their wants and the interests of agriculture de

mand, we have not the slightest apprehension of ever being compelled to complain of a withdrawal of their confidence or their patronage. We have been friends and co-laborers too long; we are too well acquainted with the wants and wishes of each other, of what is desired and expected, to have the most distant fear on that score. We feel, that for the success of our labors, much, very much, is due to the many intelligent farmers and kind friends who have been with us from the beginning, and made our journal the record of their experience, and the repository of agricultural facts. Names, new and old, now pouring in by thousands, and the masses of communications from an increasing list of correspondents, prove, that amidst the crowd of competitors for public favor, and of co-laborers in the broad field open for the diffusion of agricultural knowledge, the Cultivator still retains its high place in the affections of the tiller of the soil. All are welcome, and we rejoice in the circulation of our journal, and feel grateful to all who promote it; because in that circulation. we think we see proof that agricultural inquiry is extending, and a brighter day beaming on the prospects of patient, but honest, untiring industry, in our land. We close these remarks by expressing the hope that the friends and patrons of the Cultivator, will find our mutual intercourse for the coming year, as pleasant as that of the past, and wishing all readers a successful, prosperous, and happy New-Year.

MONTHLY NOTICES.

☞ THE public are here presented with our annual OFFERING, the first number of a new volume. The change of form, the improved typographical execution, and the superior style of the illustrations, we doubt not will meet with general approbation. An examination of the contents of this number, and a comparison with preceding ones, will show that the intrinsic value of our work is in no way diminished, and we pledge our renewed and unremitting exertions, to continue it worthy of the encouragement it has heretofore liberally received.

To our friends whose influence has extended the circulation of the Cultivator, and to those, also, who by their pens have contributed to its usefulness, we tender our sincere thanks, respectfully soliciting a continuance of their favors; and to all our patrons, we cordially tender the compliments of the season.

☞ WE have great pleasure in announcing to the patrons of the *Cultivator and Museum*, that we have associated with us in the general management of these papers, Mr. SANFORD HOWARD, who for some years had charge of the "Agricultural Department" of the Zanesville (Ohio) Gazette. A practical farmer from his youth —a close and accurate observer, intimately acquainted with the husbandry of the different sections of our country—a good judge of farm stock, and familiar with all the best breeds among us, his connection with our paper can scarcely fail to add to its usefulness and to increase its claim to public favor.

☞ OUR readers, we doubt not, will rejoice to see the commencement of a series of articles on the Culture of Fruit, in this number, which are to be continued through the year. They are from the pen of JOHN J. THOMAS, of the Macedon Nursery, than whom there are few persons in our country better qualified for the task he has undertaken. The series will embrace every variety of fruit, and will alone be worth the price of our paper.

ACKNOWLEGMENTS.

COMMUNICATIONS have been received since our last, from Geo. Geddes, V., Samuel Akerly, H. S., G. B. S., H. S. Randall, Alpha, N. B. Cloud, Salt Point, H. T. C., J. J. Thomas, Elisha Thayer, Richmond, A. J. Downing, Young Farmer of Greene County, D. Tomlinson, H. L. G., A Farmer, W., D. T., C. T. Botts, A Daily Laborer, Thomas Affleck, J. S. Vaughan.

We are indebted to P. L. SIMMONDS, foreign newspaper agent, London, for a copy of Johnson & Shaw's *Farmer's Almanac* for 1844—(we shall be greatly obliged if Mr. S can forward us a copy of this Almanac for 1841) —also for copies of the Pictorial Times, Essex Standard, Sussex Agricultural Express, and other papers—for copies of "The Legion of Liberty," to J. R. AMES, Esq. —for copies of Mr. JOHNSON'S Address before the Oneida Ag. Society; Prof. RICHARDSON'S to the Ag. Society of Ohio and Brooke counties, Va.; Mr. WILLIAMSON'S to the Ag. Society of Fayette co., Tenn., to some unknown friends—to Col. J. W. LINCOLN, for the Transactions of the Worcester Co. Ag. Society for 1843—to T. Affleck, Esq. for the Concordia Intelligencer—to E. COWLES, Esq. for Conn. Courant—to J. J. THOMAS, and some one else, for copies of the Wayne Standard.

ILLUSTRATIONS OF THIS NUMBER.

☞ WE think the Illustrations of this number greatly exceed any previous no. of our work. For the design for the head, we are indebted to our friend, J. J. THOMAS, to whose beautiful drawing, our engraver, Mr. N. ORR, whose card will be found in this paper, has done justice. We have also to thank Mr. N. Orr, for the faithful manner in which he has transferred to the block, the beautiful drawings of the Cottage furnished us by T. M. NIVEN, Esq. architect, of Newburgh; and we take this occasion to commend him as a young artist who gives promise of attaining a high rank in his profession. The Cotton Plant was engraved by J. H. HALL, and the Bull and Sheep by J. W. ORR, both well known and superior engravers.

GREAT YIELD OF BUTTER.

Mr. GEORGE A. MASON, of Jordan, Onondaga county, received the first premium of the New-York State Agricultural Society, at the exhibition at Rochester in September last, for the best cow for dairy purposes. From the 7th June to the 6th July—30 days—there was made from the milk of this cow, 67½ lbs. of butter. During the first 14 days of that time, 35 lbs. butter were made, averaging 2½ lbs. per day; and it is believed as great a ratio would have been given for the whole 30 days, had not the weather turned very unfavorable. The cow's keeping, during this time, was 4 qts. wheat bran and 2 qts. ground oil-cake daily, in addition to pasture feed. She was called a "native," but the gentleman who sold her to Mr. Mason informs us that she was got by a bull owned and imported by Captain Talcott, of Skaneateles. Will our friend Fuller of Skaneateles, give us the history of this bull?

REARING COLTS.

A correspondent, "V." of Ashtabula county, O., says: "I have been recently informed, by a person who has resided some time at the west, that in raising horses for the Santa Fe trade, and whenever great power of enduring hardship is required, a course very different from that pursued by Yankees, is adopted, viz: they feed to a colt the first winter some thirty bushels of oats; the second, twenty bushels; the third, ten; the fourth winter less still, or none at all. Which is the best course; that of our fathers, or the one just described?"

DISEASE OF THE POTATOE.

WE make the following extract from a private letter of DAVID THOMAS of Cayuga county:—"I am inclining to the opinion that the new malady in the potatoe, is a *fungus*, converting the wholesome nutriment of that tuber into its own deleterious nature. Potatoes which are not rotten, but only clouded with brownish spots, give off a very offensive odor when boiled, which I believe no common potatoe, when rotting, ever does. The opinion is not entirely unsupported by analogy. The smut in wheat may be cited as one case; and perhaps the fungus that destroys the roots of the saffron crocus in England, as another."

POTATOES FROM SEED.

OUR correspondent, J. M. Harlan, Esq., gives the following directions for raising potatoes from the seed, or ball. We can show some fine samples of potatoes raised in this way, that we have just received from Massachusetts:— "The pulp of the balls should be squeezed out as much as possible. They should then be dried and laid by till the following spring. The ground should be partially spaded, and well pulverized. I placed mine along the pales of the front part of the garden. The bugs are the greatest enemies of the young plants, and should be well watched. The potatoes will not come to their full size until the third or fourth year of planting. I had at least

seven distinct kinds, of various shapes and colors, among the potatoes produced from the seed."

SUB-SOIL PLOWS.

Our correspondent "V.," of Ashtabula county, O., in making some inquiries about sub-soil plows, says:

"Will Ruggles, Nourse & Mason's sub-soil plow work in a soil where two or more yoke would be required to draw it? * * * Sub-soil plows must eventually be introduced extensively on the Western Reserve. The soil is generally far from being light and easy to work. Below the tilled surface, an impervious sub-soil retains the water, much to the injury of most cultivated plants. Grass is at present almost the only certain and abundant product of this region, generally."

We have no doubt that the use of the sub-soil plow would be found advantageous in the kind of soil above mentioned. In another part of this paper will be found an article which contains the information called for, in regard to R., N. & M.'s sub-soil plows. The other matters mentioned in V.'s letter will receive attention hereafter.

SOUTH-WESTERN FARMER.

If we have done injustice to this paper, as complained of, by "N. G. N.," it has been through inadvertence. If we have referred to articles from it, as "from an exchange paper," it has been because we have found them in some other paper, without credit; and we take this occasion to say, that the *South-Western Farmer*, ranks with our best agricultural papers, having for its editors, our friend Dr. Philips of Log Hall, and J. Jenkins and N. G. North. It is published weekly in quarto form, at Raymond, Mississippi, by North & Vance, at $3,00 a year, or two copies for $5,00.

CULTURE OF TOBACCO.

On this subject we have received a valuable Essay, from J. S. Skinner, Esq., Washington City, which shall have a place in the course of the winter.

SALTING HAY FOR STOCK.

Mr. I. Cartwright, states in the Boston Cultivator, that he has found salted hay to be very injurious to his horses—they became "broken winded." He sold two tons to a neighbor who kept a horse and cow, and by the time the hay had been expended, his neighbor's horse was as badly affected as his own. We have no doubt that to oblige animals to eat more salt than they would naturally choose, is productive of injury, and as a *general* practice we would not advise the curing of hay with salt. Sometimes it may happen that a load is unavoidably put up with too much dampness in it, and in such a case salt may be properly used to prevent its being damaged; but animals should not be confined to hay so cured.

HATCHING CHICKENS BY ARTIFICIAL HEAT.

We learn by a letter from H. T. Chapman, Esq., of New-York, that a gentleman has commenced the business of hatching chickens by artificial heat, and is now getting 5,000 a month, and calculates, when in full operation, to increase to 20,000 per month.

DORKINGS.

Mr. Chapman, whose Dorkings have heretofore been noticed in the Cultivalor, informs us that he has just received from England, four hens and a cock of this variety; very fine birds, pure white, selected for him at Dorking by a very good judge.

"CALICO CORN."

Mr. A. W. Townsend, of New Brighton, Pa., gives an account in the Farmers' Cabinet, of a new variety of corn to which he gives the above name. He states that the flour from it, makes bread that a person who knew nothing about it, would at once pronounce wheat bread. He sent one and three-quarter bushels of this corn (weighing 72 or 73 lbs.,) to mill, and had 30 lbs. superfine and 20 lbs. of common flour, with 21 lbs. of bran. It came from Oregon. Will Mr. Townsend send us a sample of this corn?

LOUISIANA SUGAR.

A gentleman of New-Orleans has invented some new processes in the manufacture of sugar, which promise to add greatly to that valuable article. His process adds 25 per cent. to the sugar obtained, and saves the whole expense of fuel for grinding and evaporating. The apparatus now in operation turns out 12,000 lbs. daily. The Bee estimates the amount of saving in fuel, and the increased value of the product, at ten millions of dollars annually to the state.

EXHIBITION OF FRUITS.

The Report of the Committee on Fruits at the exhibition of the Worcester co. (Mass.) Ag. Society in Oct. last, says that there were "over *one thousand* samples of fruit entered for exhibition by sixty-three different individuals, all residing in the county, with the exception of six or seven, and by far the greatest proportion of them in Worcester and the towns adjoining; and of this vast number of entries, there were very few, if any, lots offered that would not be creditable to any exhibition of the kind."

PRODUCTS OF PREMIUM COWS.

E. T. Forbes took the first premium at Westboro, Mass. for a cow of common breed, which fed on pasture feed only, gave an average of 16¼ quarts per day in June last, and on trying her milk repeatedly, it was found to yield 2 lbs. of butter per day.

Thomas Cowles of Farmington, Conn., took a premium last fall, for a cow 6 years old, from which 12¾ lbs. butter was made in 7 days. Wm. L. Cowles took a premium at the same show for a *two years old* heifer, from which was made in 7 days, 9 lbs. and 10 oz. of butter. Both these trial were made in the month of *October*, and the keeping of the cows "ordinary grass feed" only.

HORTICULTURAL ADDRESS.

We desire to express our thanks to J. S. Skinner, Esq., for a copy of his very interesting, classical, and instructive address, delivered to the Horticultural Society of Washington, D. C., and we assure him that nothing but want of room prevents us from transcribing a considerable portion of it to our columns.

SUCCESSFUL COMPETITION.

At the Cattle Show of the Cortland County Ag. Soc., held on the 3d of Oct. last, H. S. Randall, Esq., Corresponding Sec'y of the New-York State Ag. Society, carried *ten* prizes on stock of various kinds.

LEGISLATIVE AID TO AGRICULURE.

We notice that the Legislature of Vermont, at its late session, passed an "Act to encourage and promote Agriculture," the provisions of which are similar to that of this state and Massachusetts. We hope soon, therefore, to see Ag. Societies organized in each county of that state.

AGRICULTURAL EXHIBITION IN MISSISSIPPI.

The Concordia Intelligencer gives the particulars of the exhibition recently held at Washington, Mississippi. Mr. Thomas Affleck, formerly editor of the Western Farmer and Gardener, delivered an address on "The Nature and Structure of Plants, with reference to Practical Horticulture," which it is said was "listened to with great attention and interest." The exhibition, in all its departments, seems to have been well filled. In the domestic and household manufactures, we should think, from the account, that the exhibition was highly creditable. The premiums in this class, we notice, were decided by *ladies*—an excellent plan in our opinion.

☞ Lewis Brush received a premium of the Suffolk County Ag. Soc., (this state) for having raised 405 bushels of corn on three acres of land.

FINE HOGS.

The Zanesville Gazette says that George W. Gibbons, of that place, lately killed four hogs, the oldest 19 mos., the youngest not quite 13 mos. old, whose aggregate weight was 2,042 lbs.—or 515½ lbs. each. They were a cross of the Leicester breed.

Agricultural, Horticultural, and Floral Society, in Northampton, Mass.—This Society, which has been lately formed, will, we doubt not, be productive of great improvement in the arts to which the united and individual efforts of its members are directed, and we confidently anticipate from it some highly interesting and useful results.

PREMIUM FOR THE BEST FIVE ACRES OF COTTON.

Our friend Affleck, of Miss., makes, through the Concordia Intelligencer, the following proposition:

"Let all who are willing to put to the test of experiment, *a rotation of crops, deep plowing, a sufficiency of manure, choice seed, and additional distance to the plant*, give in their names, and pay over five dollars to the *Treasurer of this Society*, (Adams Co. Agricultural Society,) the whole sum thus paid, to be, by him, and the President, laid out in the purchase of a piece of *silver plate*, which they shall award to the planter, so subscribing, who shall *during the next season*, give the necessary proof that he has *picked and ginned the greatest quantity* of *good* clean cotton, from FIVE ACRES OF LAND, planted and tended in such manner as he may have seen fit—tendering along with such proof, a clear statement of the entire process *in writing*, which each competitor binds himself to do when he enters for the sweepstakes."

We rejoice to see this proposition. It cannot fail to have a beneficial effect, by rousing a spirit of inquiry on the subject, which we doubt not, will eventuate in a very decided improvement in the culture of this important staple.

In our next, we shall give an account of Mr. Affleck's crop of the present year, together with a letter from him, received too late for this month.

RAPID FATTENING OF A PIG.

It is sometimes asked, what is the greatest gain per day that can be given to a pig in feeding? but it is evident no satisfactory answer can be given, as much must be depending on breeds, food, treatment, &c., and it is probable the best of all these, are rarely, if ever, united. The following statement made to us by Mr. GEDDES, of Camillus, Onondaga Co., furnishes proof that a pig may, by good treatment, and good food, be made to take on fat far more rapidly than is generally supposed.

Mr. GEDDES purchased on the 29th of July a pig weighing 177 lbs. live weight. He was pastured until the 1st of September, 33 days, and allowing a gain of 1 lb. per day (a liberal allowance) his weight at that time, when fattening commenced, was 210 lbs. On the 11th of December he was killed, and his weight, dressed, was 442 lbs. If we allow one-fourth as the loss of weight, he would have weighed, living, 552½ lbs. From this, deduct his weight on the first of September, and it leaves 342½ lbs., as his gain in 101 days. This gives a gain per day of 3 lb. 6 oz. and a fraction. His food was barley-meal, and his consumption about a peck per day.

If any of our friends have succeeded in a greater per diem gain than this, we should be pleased to learn the particulars.

BUCKWHEAT AS GREEN MANURE.

MESSRS. EDITORS:—I have a piece of land which, by the bad cultivation of the previous owner, is poor. I have no manure to spare for it next spring; my object is to get it seeded down with clover. I thought of summer fallowing it, and sowing a crop or two of buckwheat, and plowing it under. Please direct me in the manner it ought to be done; the quantity of buckwheat to the acre; also if two crops of buckwheat can be got in so as to sow wheat by the 1st of September, as I prefer early sowing, as the clover does better to be sown early.

Onondaga, Dec. 12, 1843. SALT POINT.

The object of "Salt Point" appears to be to enrich his land by plowing in a green crop of Buckwheat. For this purpose the seed may be sown as early in the spring as the frosty season is over. It should be plowed in when in full bloom, and this may be readily done by first passing a roller over it, making just such lands as it is intended to plow, and running the plow the same way the roller went.

If the first sowing of buckwheat should be got in early, it might be turned under, and a second crop might be raised and also plowed under in time for wheat. The second crop might be plowed under at any time, if it should appear that there was not sufficient time for it to reach maturity; there would, of course, be something of it, though its value as manure might not be as much as if there were more of it.

PROFITS OF POULTRY.

From the report of a committee on Poultry, of the Wayne County (N. Y.) Agricultural Society, we gather the following items:

Charles P. Smith, of Ontario, keeps 120 hens and two cocks. Attached to his hen-roost is a yard containing one-fourth of an acre, enclosed with a picket-fence six feet high. From the first of March to the tenth of October, he had 6,000 eggs, and 115 chickens.

John J. Thomas, of Macedon, states that carefully conducted experiments have led to the conclusion, that a "bushel and a half of oats will be an adequate yearly supply for each adult" hen, and that by allowing the fowls "an hour's run for exercise before retiring for the night, high health and productiveness will be secured."

David Cushing keeps 25 hens, and feeds them with oats, corn-meal, broom-corn seed, and refuse meat, and supplied with ashes, pounded shells, &c. They were confined to a warm but airy room during winter. His account current is as follows:

Poultry Establishment, Dr.

To investment of stock and fixtures,	$50 00
Interest,	3 50
Feed, a large estimate, 25 bush. oats, 20 ct.	5 00
Attendance,	5 00
Total,	$13 50

Cr.

By 75 doz. eggs, 12 c. sold early,	$ 9 38	
" 200 chickens, 10 cts.,	20 00	
	$29 38	29 38
Leaving a nett balance of		$15 88

On an investment of $60 00, or, an interest of more than 25 per cent on the capital employed.

CLOVER HULLING MACHINES.

IN answer to an inquiry in our Nov. No., concerning machines for cleaning clover seed, we have received two letters, from which we extract the following information:

Thomas D. Burrall, of Geneva, in this state, states that most of the seed raised in that neighborhood is cleaned by machines made by him, and that his machines are largely in use in most of the states. He builds three sizes, costing sixty, seventy, and eighty dollars each, and requiring from two to six hands to drive them. His machines thoroughly clean the seeds at a single operation.

H. Baldwin, of Washington, Conn., manufactures a machine which is very highly recommended by those who have used it, and which took the first premium of the American Institute of New-York, in 1840, and has taken several other premiums. It is said to do the work without any loss of seed, and is so constructed that it can be tended without inconvenience from dust or dirt.

CAPONIZING.

A correspondent of the Philadelphia Ledger gives the following very simple mode of castrating fowls:

"The bird was kept from food for two days, in order that the distended entrails should not conceal the organs from the view of the operator.

"Strapping its wings to a table, through an auger hole, an inch incision was made in the side, between the hip and the last rib, and two inches from the spine; the feathers having been first plucked out at that spot.

"By a simple spring-grapple, the sides of the wound are kept apart. The organ to be removed is readily recognized—it is a small reddish-yellow cylinder, tied to the spine; and by means of a horse-hair, looped and passed through a little tube, it is removed in an instant. The bird was turned on the other side, another incision made, and the corresponding organ excised—the whole process occupying about two minutes. The loose feathers were pressed on the wounds as a styptic, and the poor bird did not appear to suffer at all."

NEW-YORK STATE AGRICULTURAL SOCIETY.

Annual meeting to be held at the old State Hall, Albany, Jan. 17, 1844, at 10 o'clock, A. M.

The regular meetings of the Executive Committee, are held at the same place, on the second Wednesday of each month.

MEETING OF EX. COMMITTEE FOR DEC.

The following communication was received and referred to the annual meeting of the Society:

To the Executive Committee of the New-York State Agricultural Society:

Gentlemen,—I enclose the proceedings of a meeting of citizens of Dutchess county, held at Poughkeepsie, on the 3rd inst., which give their views in relation to the improvement of agriculture, by means of county and state societies, and express their desire that the next annual fair of the State Society should be held in the village of Poughkeepsie. That place seems to be the most central and eligible for all the citizens of the 1st and 2nd senate districts, and for a large portion of those of the 3rd district; with great facilities of communication with other portions of the state. No state fair has yet been held south of Albany, and the citizens of the southern section may reasonably expect that some regard will be paid to their locality and convenience; and believing that the object of the State Society is to distribute its benefits as widely as possible, I indulge the hope that the present application will receive a favorable consideration. A number of the committee attended at this place on the 15th inst., under the impression that the Executive Committee would have met on that day. At the meeting in the village of Poughkeepsie, about $700 was raised by subscriptions for the purpose of providing suitable enclosures and accommodations, and the committee consider themselves pledged that such shall be provided free of expense to the Society, and that the Committee of the State Society shall have the control and direction thereof, and the whole benefit of the fund which may be raised from admissions. ABM. BOCKEE,

Albany, Nov. 27, 1843. Chair'n of the Com.

Donations of Books for the Library of the Society, were presented as follows:

150 vols. from the *Albany Institute*, consisting mostly of the Reports made to the British Board of Agriculture, of the Surveys of the several districts of England, Scotland, Wales, &c.

Transactions of the Albany Institute, vols. 1 and 2—from the *Institute*.

The Farmer's Cabinet, from its commencement, 7 vols. from *Josiah Tatem*, publisher.

Memoirs of the Board of Agriculture of the State of New-York, Vol. III.—from *Alex. Walsh, Esq.*

The thanks of the Society were voted to the several donors, for this handsome addition to their Library.

The thanks of the Society were also voted to Gen. HARMON, of Wheatland, Monroe county, for specimens of twelve varieties of wheat cultivated by him.

The Society will be glad to receive the 1st and 2nd vols. of the Memoirs of the Board of Agriculture of this state, to complete their set, from any gentleman who may have a copy to spare. Any other works on the general subjects of Agriculture or the Natural Sciences, Agricultural Reports, Addresses, &c. will also be very acceptable.

☞ The next meeting of the Ex. Committee is to be held Jan. 10, at 10 o'clock, A. M.

NEW PRODUCT OF THE SOUTH.

We find in one of our Louisiana papers, that Mr. McIntyre of Ouachita, is cultivating the *bene plant* for the oil obtained from its seeds. Twenty bushels is considered a fair product for an acre, which will give fifty gallons of pure oil, worth $1.25 per gallon, or a product of $62.50 per acre. The oil is superior to the common olive oil, and its taste is very pleasant. It will, should its culture for this purpose spread as anticipated, render the importation of olive oil unnecessary in the southwest.

TENNESSEE HOGS.

We have been furnished by our friend J's L. Vaughan, with the weight of fourteen hogs killed by him. They certainly did well, for "the common scrub breed;" but we can hardly doubt that had Mr. Vaughan kept some of the improved breeds instead of them, they would have acquired they same weight at 18 months, that these did at "three years old."

Caledonia, Henry Co. Tenn., Dec. 7, 1843.

MESSRS. GAYLORD & TUCKER:—I send you the weight of 14 hogs killed the other day. We have not as fine hogs as in other places, but I thought perhaps you would like to hear what sort of hogs we do have:

No. 1	weighed,....	424		No. 8	weighed,....	266	
2	"	384		9	"	264	
3	"	346		10	"	248	
4	"	330		11	"	228	
5	"	316		12	"	222	
6	"	302		13	"	212	
7	"	274		14	"	208	

Total weight of 14 hogs, 4,024; average, 287.

These hogs were of the common scrub breed, 3 years old; allowed to run out in the woods, and fed on corn once a day until they were put up to fatten, except in harvest time, when they were turned in upon a small field of oats without any corn. They were penned in the latter part of August, and fed on corn until they were killed, being three months fattening.

IMPROVED VARIETIES OF INDIAN CORN.

Messrs. GAYLORD & TUCKER:—Herewith I forward you a box containing a sample of my crop of corn of the present year. There is one ear on the top of the box, containing sixteen rows, sent to me by a neighboring farmer, being a sample of his crop, all of which was shrunk and indented like this. The seed from which this sample was raised, was Virginia corn, showing clearly that the season here is not long enough, or warm enough, to perfect the grain. It will show, by comparison, the advantage of raising the White Flint, like my crop, all of which is good and fair, though all the ears are not as large as the samples I send you.

Respectfully yours, SAMUEL AKERLY.

Southfield, Richmond Co., N. Y., Dec. 4, 1843.

We have received the samples of corn mentioned above, and should be happy to distribute it among such of our friends as wish to give it a trial. The White Flint, spoken of, is a handsome variety, and we should think would suit the latitude where it was raised—say two degrees south of this, very well.

THE SUGAR CANE.

A correspondent of the *Planter's Banner*, Louisiana, gives the following as Mr. Packwood's system of cultivating the Sugar Cane, which is said to have proved very successful:

"Mr. P. plants his cane eight feet apart, and gives it a very heavy hill. In cutting his cane, in the fall, he winrows his tops in the middle of his rows. As soon as he finishes rolling, or whilst rolling, if possible, he throws four furrows with a large plow over his winrowed tops, and leaves them through the next summer to rot, having plenty of space left to hill and cultivate his crop, without interrupting them. The four furrows, with the rattoon tops and leaves, give him a good ridge on which to plant the next year, and space enough to cultivate it without interfering with the old stubble until the last plowing, when he breaks it out with a large plow and strong team. thus opening the drill for the deposite of the plant cane-tops as before: Thus changing his rows every other year, and planting each time over a good bed of manure. In this way Mr. P. has brought up an old cocoaed place, to be one of the most productive plantations in the state. His crops range from 500 to 600 hogsheads a year, and he scarcely ever rolls more than 200 arpents of cane."

Principle will succeed where management would fail.

BERKSHIRE HOGS, &c.

We give the following from a letter from Col. John Bonner, of White Plains, Georgia, dated Nov. 17:

"In the last number of your Cultivator, I read the remarks of J. W. G., relative to the weight of his Berkshires, &c. I can only say that the Berkshires raised by me have greatly exceeded the weights stated by him, and that with ordinary food. I have no doubt but with good food, and a plenty of it, I can, at one year old, make a lot of ten or more of my hogs, average over 400 lbs. nett. I also notice your reply to his remarks on that subject, in which you say "that other food than corn will make them attain greater weights, &c." Now I should be much pleased to know what kind of food it is that is cheaper and will make hogs grow larger than corn will. I am a raiser of Berkshires to a considerable extent, and should be happy to find any food better and cheaper than corn, or corn meal, to raise them on."

If our correspondent will turn to the Cultivator for 1843, page 30, he will find in the Lecture of Professor Playfair, some hints which will enable him to see why some kinds of food are more productive of muscle and growth, than of fat, and *vice versa*. Our method is to allow our pigs to run in clover pasture the early part of the season, feeding them with potatoes, or small quantities of barley meal, to keep them constantly thriving, not fattening. When apples begin to fall, they run in the orchards. Peas which are sown for this purpose, are now fit for feeding to them, and experience proves there are few things that better promote both growth and condition, than to commence with the pea while the vines are still green. By the time to commence the process of fattening, a good growth is obtained, and the fattening is conducted with peas, or barley meal, or corn, as circumstances may indicate. Dr. Dana's analysis of Indian corn, shows why it is better for fattening, than the formation of muscle or growth. Of the principles that promote growth, it contains but about twelve parts in a hundred, the remainder belong to those useful in fattening.

PREMIUM FARMS.

Among the most interesting papers emanating from our Ag. Societies, are the Reports on Farms. From a very valuable report of this kind, made by our correspondent, J. J. Thomas, to the Wayne Co. Society of this state, we copy the following description of the Farm which received the first premium:

The farm of Wm. P. Capron, in the town of Macedon, contains 160 acres, of which 120 are cultivated, and 40 occupied with wood. It is handsomely laid out, divided by a lane, with fields of about 10 acres on each side. This is the only farm where the committee found a regular system of rotation of crops. The following is the rotation pursued in each field:—1st. Wheat after clover; 2d. Corn with all the manure; 3d. Barley; 4th. Wheat; 5th. Clover one year; 6th. Wheat, &c. Different fields are of course occupied the same year with different stages of this course; and so uniformly is it pursued, that the proprietor can tell for twenty years to come, what is to be in each field. A proof of the cleanliness and fine tilth which this rotation produces, is furnished by the fact that 7 acres of corn were hoed well, the present year, by three men in three days. His crop of corn averages from 40 to 60 bushels to the acre; barley averages 35, and has never been less than 25; wheat, which he considers is more benefitted by the manure applied two years previously to the corn, than if directly applied, has averaged over 20 bushels,—in one case he had 50 bushels per acre on 5 acres; ruta bagas, from 600 to 700 bushels per acre, and has raised more than one thousand bushels on one acre; these he feeds successfully (uncooked,) to hogs and other animals during winter. There are 17 acres of permanent meadow, generally lowland, which is occasionally top dressed and harrowed, but rarely plowed, and which averages fully two tons to the acre. He never raises oats, but buys them when needed. He has 9 cattle, 5 horses, 120 sheep, and 20 hogs, from which he makes yearly 300 loads of manure, all of which is applied every spring to the corn crop. He fattens hogs on ground and cooked corn and barley, the cooking greatly swelling the bulk with water, and according to his experiments, increasing the value of the food about three fold. A part of the farm which cannot be well brought into the regular rotation, is periodically summer fallowed and sown with wheat. There are never less than 30 acres of wheat each year,—10 acres of which are after clover, 10 after barley, and 10 or more after summer fallow. There are but 10 acres of pasture, besides stubble and fallow. This is the one year of clover preceding wheat. When the clover sod is clean, he mellows the surface with a cultivator, and sows it. There is a mile and a half of stone wall; nearly all the rest of the fences are rails, with upright stakes and connecting caps under the riders. The buildings are a good house, large barn, sheds, stone granary, &c.

THE SILK BUSINESS.

The 6th No. of Greely & M'Elrath's "Useful Works for the People," is devoted to the "Silk Culture," and has heretofore been noticed. In this work we find a letter from Alex. Walsh, Esq., of Lansingburgh, on the progress of the Silk business in this country, from which we make the following extract:

"The statements which have recently been laid before the public on this subject, are most gratifying to those who, like myself, years ago asserted the practicability of the Silk culture; and the argument which they afford is conclusive in favor of the value and importance of this branch of industry. The experiments made in different parts of the United States, form a new era in the business of Silk culture, and must remove every lurking doubt as to its practicability and utility, even when managed on an extensive scale. It will give a new impetus to such as are already engaged in the employment, and arrest the attention of others in whom the subject has hitherto awakened comparatively but little interest.

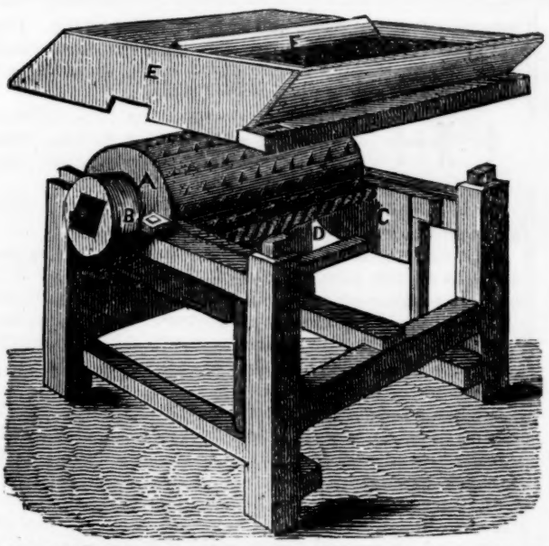
"I am gratified to observe that in New-England this enterprise is steadily advancing. The amount of Silk made, seems to be doubling with each successive year. 'Maine can grow Silk; New-Hampshire and Vermont can grow Silk. Notes of encouragement come from the cold North and the warm South. The fertile West has spoken in terms full and decided. Onward we are summoned; onward determined to move.'

"The late experiments and results connected with the 'Silk Culture,' assume especial importance when regarded in a national point of view, and as pointing to a general and lasting benefit that must flow from the successful establishment of the Silk culture and manufacture in the United States—this being 'a department of industry that has enriched and aggrandized every nation by which it has been adopted.'

"Now that the principal obstacles in the way of the successful prosecution of this business have been surmounted, will not our agriculturists generally direct their attention to this branch of new and profitable industry? The production of Silk fabrics might furnish employment to classes of our population who are now of necessity unemployed, or meagrely compensated for their labor. This would secure the advantage of steadiness of employment—increase the average reward of labor—promote individual comfort and national wealth. I persuade myself—looking at present indications, and at the same time dwelling in my own mind on the importance of the subject—that the United States will shortly become a Silk growing nation; that Silk will be the prime staple article, and its culture the most profitable branch of agriculture; and the time thus arrive when there will be saved to the nation the amount of money now expended in purchase of foreign silks, and exceeding *seventeen millions of dollars* per annum."

REMEDY FOR HARD MILKING.

Mr. Kniskern, of Knox, says that he has tried the plan of opening the teats of cows that milk hard, with a harness awl, or a small penknife, as recommended in a former No. of the Cultivator by Mr. Durand, and has by this means made a very good milking cow from one which could scarcely be milked before.



GOLDSBOROUGH'S CORN SHELLER & HUSKER.—(Fig. 2.)

THE above figure represents Goldsborough's patent cylindrical Corn Sheller and Husker, for horse power, which is worthy the attention of extensive corn growers. They are capable of shelling 130 bushels per hour, and are warranted to shell 1200 bushels per day, without extra exertion; they break no corn, and leave none on the cob. With this machine, about half the above quantity may be husked and shelled in a day. They are manufactured by R. SINCLAIR, Jr. & Co., Baltimore, and for sale at $45,00 and $35,00, according to size.

SOWING CLOVER SEED IN ORCHARDS—COAL ASHES.

MESSRS. EDITORS—It has been remarked by some, that clover seed should never be sown in orchards; that so long as the clover remained, the trees would yield no fruit. Now I would thank you to insert in the next no. of the Cultivator, your opinion, or that of some of your correspondents, upon the subject, whether red and white are both injurious, and if both, which the most so? Likewise whether the ashes of anthracite coal contain any nutritive substances, or are in any way beneficial to land? A SUBSCRIBER.

We are aware that the cultivation of clover in orchards has been condemned by many, but we think without reason. If clover is allowed to ripen its seed, it produces on soils the same exhausting effects that other plants, the grain ones for instance, do, when their seeds are ripened on the land, and probably no more so. The ripening of grain seeds, is however, usually preceded and followed by the plow, which has a tendency to counteract the exhausting effect, a practice to which clover land is not as commonly subjected. That clover will not prevent orchards from bearing, we have the most conclusive evidence. Our orchards have been always subjected to a clover rotation, and without injury to the fruit. The present year our orchard is in clover, and was mowed; and it is believed it would be difficult to find finer apples of the several varieties grown in it, or trees more productive than a large part of them have been the past season. On soils much reduced, it is possible clover might subtract something from the nutriment, otherwise drawn by this tree, but no more than by other plants, if so much.

Anthracite ashes are valuable as a top dressing for grass, or applied to plowed lands intended for crops, or when placed around trees as a preventive of vermin. They should always be carefully preserved, and applied by the farmer where most wanted. With compost manure, or swamp muck, they render essential service. The term "nutritive," is not generally applied to manures of this class; they are more properly "stimulating," like other mineral manures.

The mahogany tree is full grown in 200 years.

DIGGING POTATOES—CORN SMUT—PLASTER.

MESSRS. GAYLORD & TUCKER—There is quite a difference of opinion among farmers, as to the best time of digging potatoes. Some prefer digging them soon after they are ripe; others prefer to let them stand in the ground, as long as they can and be secured safely. My own opinion is, that if allowed to remain in the ground a length of time after they are ripe, they will, when dug and carried into the celler, prove better, and their flavor superior to those dug as soon as ripe. Exposure to the sun and air, soon spoils potatoes, and the sooner they are placed in the cellar after being dug, the better they will be for eating. We should be glad to learn your opinion on this subject. [1]

I have noticed that there is more or less smut on corn every year; and I have been led to think what could be the occasion of smut; and does it increase more in wet weather than dry? There is more or less of it i all seasons. Will the taint of smutted seed corn, if planted, cause the grown crop to be smutty? [2]

How will sowing plaster in the fall, on irrigated meadows, operate? We have had as good returns from plaster sown on low natural meadows, as upon upland; but never have sown it in the fall of the year. There would be an advantage in fall sowing over spring sowing, were the effect equal, as farmers have less to do in the former season than in the latter. But the difference in effect on the crop at fall, over spring sowing, we have not learned. [3] LEVI DURAND.

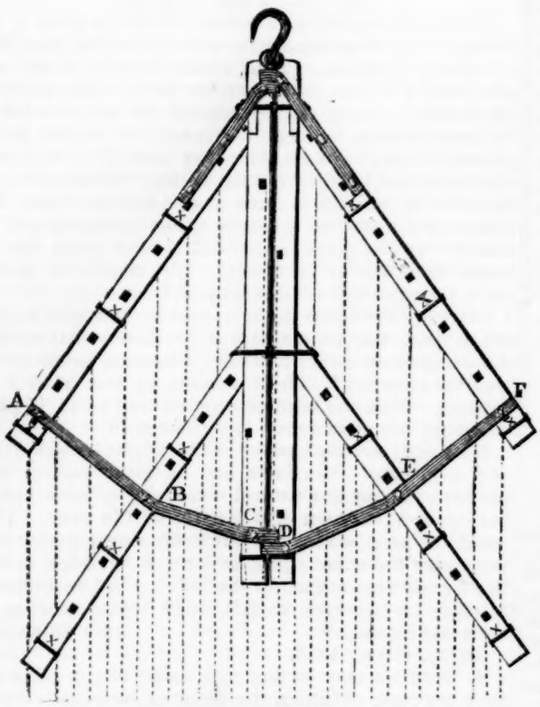
Derby, Conn., 1843.

1. Potatoes may be dug with safety at any time after they are ripe, of which the decay of the vine is the best indication; but they will continue to improve, if suffered to remain in the ground, unless, as is sometimes the case with very early ripe potatoes, and as we have seen this year, they commence sprouting, an indication that their hibernation, or the period of rest in plants, has passed. Not only the sun and air, but even light, is very injurious to potatoes, which will be better for being kept in cool dark cellars. If a cellar is light, covering the potatoes with turf, is an excellent plan. Potatoes should be dry when put in the cellar, and then the dirt that is upon them is beneficial rather than otherwise. Potatoes this year are rotting extensively, because they did not mature, but rather died from drouth. This is particularly the case we learn with that fine potatoe, the *pinkeye*.

2. The fungus on corn, like the smut on wheat, oats, &c. is a species of Uredo, and corn infected with the smutty particles, is much more likely to produce smut again. That smutty wheat, if sown, will in most cases produce smutty wheat for a crop, is certain; and as brining and liming wheat will kill the germinating power of wheat smut, it is probable the same process would exterminate it in corn. The trial would be well worth making. Wet seasons, if hot, are most favorable to all species of fungus or uredo.

3. We live in a district where plaster abounds on every side of us, and is used extensively by nearly every farmer, but we know of no instance where it has been used on irrigated meadows, and the opinion is general that plaster is of little if any use on low moist lands of any kind. Plaster, with us, is sown at all times of the year, as best suits the convenience of the farmer; though the time preferred is April or May, when the wheat and clover have fairly begun to put forth their leaves. We have known it used with good effect on summer fallows; sown on wheat in the fall; on wheat and clover, or dry meadows and pasture, in the spring, but rarely on low wet pastures or meadows. If any of our readers have experimented with plaster, in the way suggested by Mr. D., they will confer a favor by informing us of the result.

GREAT BERKSHIRES.—In looking over the list of premiums awarded at the late meeting of the Rhode Island Ag. Society, we noticed the following:—"Messrs. A. & W. Sprague sent to the show two very fat pigs, about two and a half years old, supposed to be nearly pure Berkshires. These animals weigh about twelve hundred lbs. each, alive."



MR. GEDDES' HARROW.—(Fig. 1.)
(Scale, half an inch to the foot.)

We are indebted to George Geddes, Esq. of Onondaga county, for the drawing from which the above engraving was made, as well as for the annexed description of the Harrow, invented by him some years since, and which has been extensively used in that part of the state, and found superior to any other known there. With the aid of the description and drawing, our readers in any part of the country will be able to get them made for their own use, as there is no patent for it.

Description.—Timber, three inches square.

The side pieces should enter the center pieces, so that the acute angle will contain thirty-five degrees. Or the bevel may be found by laying a carpenter's square on a board, and measuring on one side of the corner three inches, and on the other two inches and one-twelfth of an inch; a line drawn through these points will make a triangle, having the smaller angle, that is the angle at the point where the three inches reached,—the angle required.

The tenons should enter the center pieces only one inch, the mortice and tenon being cut square with the center pieces, as shown in the engraving. If this joint is well made, the bolt passing through both sticks will keep the timber in place perfectly. The side pieces have each three bolts, X. X. X. passing through the middle, to prevent their splitting. The back hinge is made of Swede's iron, bolted at A. B. C. D. E. F., on the timber with half inch bolts. These bolts should be well made, and have large heads on the lower end, as of any thing breaks, it probably will be these bolts.

The forward hinge is made with Swede's iron, and bolted on the top of the timber, with three bolts in each side of the hinge.

The hook plays freely in an eye on the end of a rod, made of round iron, five-eights of an inch in diameter, which runs through both hinges; having a washer, nut and spring key, behind the back hinge. The eyes in the hinges should be the thickness of the iron above the timber, consequently the rod running through the eyes will be that much above the timber.

The hinges should be four and one half feet apart from center to center.

The center pieces are one inch apart.

Fig. 2.

Fig. 2, represents the bolts that pass through the joints of the center and side pieces. The heads on these bolts are half an inch thick, and being exactly opposite each other, *they come together* when the harrow is flat on top. These heads and the plates under the nuts are three inches long, and are turned a little at the ends, so as to grasp the timber, and keep it from splitting.

Fig. 3.

Fig 3, represents the two bolts that pass through the center pieces, behind the back hinge, with the heads, plates and nuts.

The side pieces should be twelve or thirteen inches apart in the clear, measuring square across.

The four teeth in the center pieces require to be made straight on one side, instead of having the point in the center, as their places are near the sides of the timber.

The teeth should be seven-eights of an inch square.

This drawing of my harrow, shows all the improvements in its construction that have been made since you published the engraving in 1836.

I have attempted to show every thing in this drawing, and to give so minute a description that any common mechanic shall be able to construct a harrow without making mistakes.

A harrow having thirty teeth passing within two inches of each other, from center to center, is just what is wanted on ground under good cultivation. On land just cleared, the teeth should be further apart, perhaps four inches.

The advantages that my harrow possesses over the hinged square harrow, are very great. It draws easier. One reason for this is, that the line of draft passes through the middle of the harrow, having just as much weight, and just as many teeth, (and they equi-distant there from,) on each side; consequently, the harrow on an even surface, moves straight forward, without producing any vibrating of the whiffletrees, as the square harrow does.

Another advantage is, it is easily cleared of foul stuff. The driver, without stopping his team, lifts up one side, and the stone or stick falls out.

The teeth track better, and instead of leaving a few large marks on mellow ground, it leaves thirty small marks.

It is stronger, and when broken is easier repaired than any other harrow.

It is cheaper than a well made thirty tooth square harrow, and the expensive part, (hinges, rod and bolts,) will last a very long time. The cost of one of my harrows, made of the very best of timber, the teeth all steel pointed, and the whole painted twice is twelve dollars.*

I request any person that may attempt to construct a harrow from my plate and description, to follow the directions exactly. If it should be supposed that improvements can be made, I beg that first an experiment be made after my directions—then improve, and if the improvement is not found to be backwards, give it to the public.

I have been using this harrow for eleven years. Since you published the engraving in 1836, which showed the principles involved, I have made great improvements in the manner of putting it together; but all the attempts to alter it fundamentally, have so far as I have learned been failures, and sometimes the experimenter has laid his to somebody besides himself.

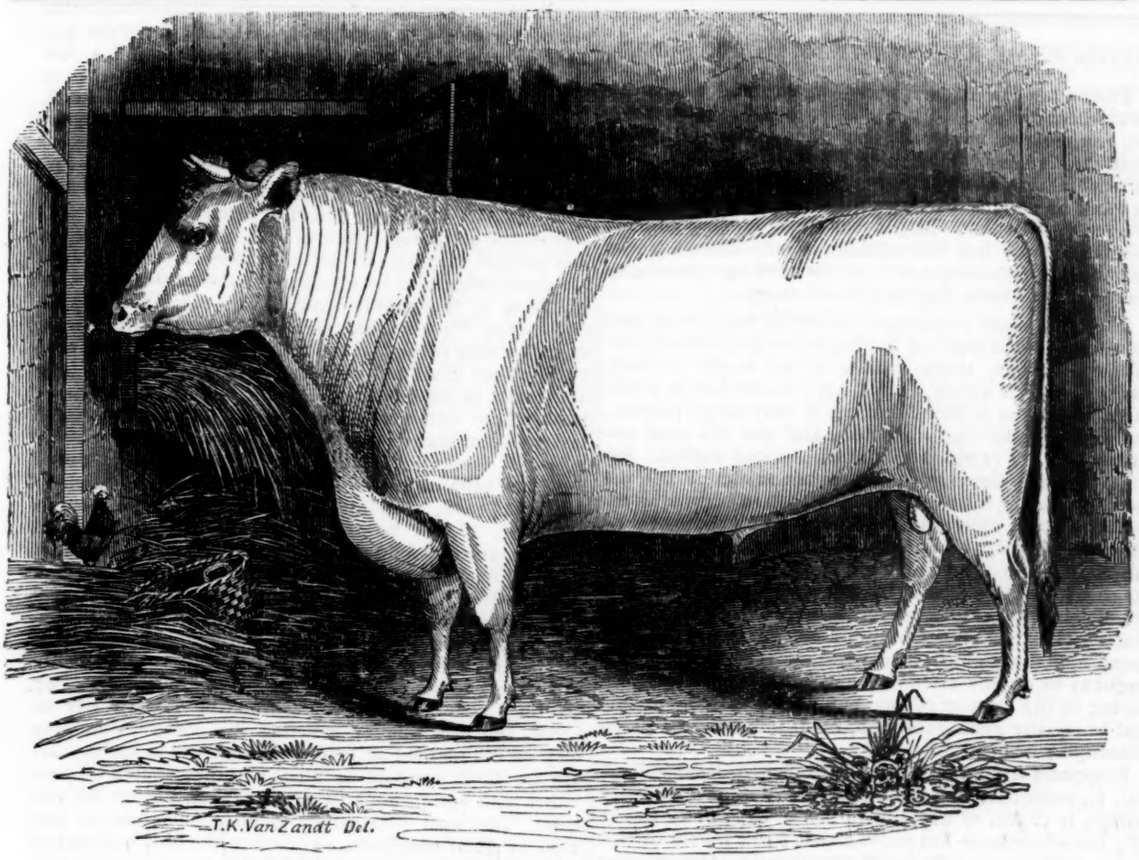
My only wish now, in relation to this harrow, is, that it may be made correctly; that this may be done, I have prepared the drawing. I have no fears but that it will prove to be better than any other in use, if fairly tested.

Tyler, N. Y., Nov. 30, 1843. Geo. Geddes.

Hemp Tree.—The Louisville Journal says, "A hemp stalk measuring nine inches in circumference, and sixteen feet two inches in height, and having sixty-five branches, was grown on good clay land in Mecklenburg co., Kentucky.

---

*As it may be inferred by some unacquainted with Mr Geddes, that he makes the harrows here described, or is interested in their construction, we deem it proper to state that such is not the case,—that in giving this harrow to the public, the only solicitude he feels, is that of the inventor; but that should any person desire a harrow of this construction, by addressing a note to Oren Barton, Tyler P. O., N. Y., postage paid, enclosing $12, a harrow made in the best manner, will be put on the canal, directed and forwarded to any place required. [Eds. Cult.]



IMPROVED SHORT HORNED BULL "METEOR,"

Bred and owned by GEORGE VAIL, *Esq. Troy.*

METEOR, now two years and three months old, received the first prize at the cattle show of the American Institute, in Oct. 1843, as the best bull of any age, and also the first prize as the best bull in the first class at the Rensselaer County Agricultural Society's Fair, Sept. 1843. He was got by *Duke of Wellington*, out of *Duchess*, both bred by THOMAS BATES, Esq., of Kirkleavington, Yorkshire, England, and whose pedigrees have been heretofore given in the Cultivator.

Meteor is a fine animal, of good size, small bone, and excellent handling; with all the essential indications of good constitution, tendency to fatten, and quality of flesh. His dam, (Duchess,) is a fine cow—her head and eye show good breeding—and her points show a very good combination of fattening and milking qualities. She now has her third bull calf—not yet having had a heifer. The calves are all well shaped, and are good handlers.

Mr. Vail has handed us a letter, recently received by him from Mr. Bates, from which, at his request, we make the following extract:

"I showed the above gentlemen the Oxford premium Cow of 1839—the dam of your bull by Short Tail, (2621,) and her half sister, (same dam, and by Short Tail)—also the own brother to this half sister, Cleveland Lad 2d. (3408) and own brother to the bull that got the highest premium of the Royal English Agricultural Society at the Liverpool exhibition in 1841, named Cleveland Lad, (3407,) and which own brother I sold last year to Lord Feversham. In 1841, he also gained the first or highest premium given at the meeting of the Yorkshire Ag. Soc.

"These two cows and two bulls, all of the same cow, with a steer sold when two years old, and weighing then 72 st. 8 lb. of 14 lb. per stone, were in succession from the same cow, after putting her to bulls of the Duchess family. She had bred five inferior calves previously to other bulls—the best of their day—but not having any Duchess blood in them. My tenants, whom I had furnished this cow at her prime cost, £11, after having had her first five calves, offered her for sale in Darlington market, a month after calving, and could not have above £9 15s. for her, though a very good milker, giving 12 quarts of milk, ale measure, when on hay only in winter; no turneps or other hard food, and straw at nights. As they wished to sell her, I took her again of them at prime cost, £11; telling them previously, that if put to bulls of the Duchess family, this cow, called Matchem cow, would not breed a calf worth less than 100 guineas; and the Oxford premium cow was her first calf afterwards—and her half sister by Short Tail bull, (2621) is a better cow than even the Oxford cow. She has brought me two roan bull calves to Duke of Northumberland, and is now turned four years old; these calves are both very promising. And as a proof of the great improvement this tribe make, 2d Cleveland Lad went into Northumberland before he was two months old, in May, 1838; on the 6th of June last, he left Northumberland, having been kept on one of the highest hills there on which grain is grown; he was weighed on coming here and his weight 160 stones; on the 30th of July, he was again weighed, and had gained 24 stones in the 54 days; or 12 lb. over 6 lb. per day—or 3 stones of 14 lb. per stone, per week—weighing then 184 stones; a greater growth than I ever knew gained in the same space of time, and he was regularly served to cows during the time. The Oxford premium cow, calved Oct 5th, 1838, and was milked regularly every meal, twice a day, till Oct. 1841, bringing a calf annually; and in September, 1841, would have weighed above 100 stones of 14 lbs. per stone, and on grass only during the summer of 1841, she and two others going on two acres of grass, till so bare that they leaped the fence to get better food."

OHIO SILK GOODS.

Mr. J. R. HOWARD advertises in the Zanesville Gazette, vestings, ladies' dress silks, hosiery, drawers, shirts and caps, from the manufactory of John W. Gill, of Mt. Pleasant, Jefferson county, Ohio. Mr. Gill seems to be rapidly improving the quality and increasing the quantity of his fabrics, and we are happy to see the prosperity of this branch of industry.

CUTTING STRAW, HAY, CORNSTALKS, &c., FOR FODDER.

THERE are few farmers unwilling to admit that straw, cornstalks, and even hay, are far better for food when cut, or converted into chaff, than when fed out uncut; indeed, this is one of those things that are self evident to all who understand any thing of the action of the stomach on food, or what is necessary to nutrition. Great, however, as is the acknowledged benefit of feeding animals in this way, the few that attempt it only serve to show how deeply rooted the habits of the farming community are, and how averse they are to all change.

There are many advantages in cutting hay, straw, and cornstalks, when used for fodder, or the food of animals. In the first place, there is little or no waste of food. Every farmer is aware that of hay, clover hay in particular, when fed without cutting, a very large portion, and of cornstalks nearly one-half, and that the most nutritive part, is rejected by the animal and wasted. Secondly, it is presented to the stomach in a condition the most proper for the action of the digestive organs, an essential point in ascertaining the necessary amount of food required to keep an animal in condition to travel or to labor. Thirdly, an animal consumes much less time in making its meal, or filling its stomach with cut food, than when uncut; a most important matter to the poor animal that requires rest after labor, and not to be compelled to spend half the night in eating to satisfy hunger, when it ought to be quietly sleeping; and lastly, there is a great saving in the quanity of food consumed, to keep an animal in equally good condition, or fit to perform a given quantity of labor.

It appears from a statement in "British Husbandry," vol. I., page 141, that the allowance of food to cavalry horses, is 12 lbs. of hay and 10 lbs. of oats, or 22 lbs. in all; but experience has proved that work horses or cart horses will require 28 to 30 lbs. to keep them in good condition; and the large dray horses of the metropolis consume from 36 to 40 lbs. of hay and oats daily. The great contractors, the Messrs. Wiggins, allow their heavy horses 16 lbs. of clover hay, 4 lbs. of straw, and 18 lbs. of oats daily. This is a much less quantity than is usually consumed, or rather wasted daily by our ordinary farm horses, and proves that we are very far from being as economical as we might be in the matter of feeding. In the 19th volume of the Sporting Magazine is a letter from Dr. Sully, a physician of extensive practice, giving the results of his experience in feeding horses, and they are the more entitled to notice, as made in all respects with the greatest care and precision. The animals upon which his experiments were made, were his own saddle or draught horses, usually driven at a rapid pace, and yet kept in perfect working order. The kinds of food used by Dr. Sully, were divided into four classes, in the following proportions, and experience proved that they were nearly equal in keeping the animals in good condition; a slight preference being, however, given to the first and second classes, of which potatoes form a part:

	1st. lbs.	2d. lbs.	3d. lbs.	4th. lbs.
Bruised or ground beans, peas, or white corn,	5	5	10	5
Hay, cut into chaff,	7	8	10	8
Straw, do.	7	10	10	8
Steamed potatoes,	5	5		
Malt dust, or ground oil cake,	..	2	..	2
Brewer's grains,	6			
Bran,	..	..	..	7
	30	30	30	30

It must be remembered that the "white corn" mentioned is not Indian corn, but the common white grains, such as barley, wheat, &c., and that the same quantity of ground Indian corn might be substituted for the grain in each of these cases. All this food was made into what is called manger meat, that is, it was cut and mixed in tubs, and fed in the manger, no racks being used for hay or straw. Two ounces of salt were allowed to the daily feed of each horse; but this we think a rather liberal allowance. Any farmer who will look at this table, and then at the amount of food he is in the habit of giving his horses, in hay and grain, will see there must be a great loss somewhere, and might readily calculate whether there would not be a saving effected where a number of horses are kept to justify the purchase of the fixtures necessary for such a preparation of food. A few years since, a failure in our hay crop compelled us to keep our working horses on cut straw and corn meal, with two or three carrots thrown to each horse daily, and never have we had our teams in finer condition, or better fitted for the labor of the farm than in that year. Our rule is to salt our horses once a week, and to mix with the salt for each animal a handful of ashes; as a preventive of disease, such as bots, colic, &c., we think this method unrivalled. In no country in the world are the great principles of economy in the management of the farm so thoroughly studied, and successfully practiced, as in Flanders, and no where are the farm horses so universally fat and in fine condition for labor, as there; yet the food is all cut, ground, or steamed, before using, and racks in stables for horses are unknown. In England, where extensive experiments have been made to test the comparative merits of feeding prepared and unprepared food, the saving effected by cut or prepared food has been estimated at from one-fourth to one-sixth of the expense; probably one-fifth may be about the true medinm, It may be added here, that the arguments in favor of cutting food for horses, are, so far as the same kinds of food are concerned, equally conclusive in favor of so feeding other stock.

The things most necessary for farmers who would like to feed their stock economically and yet effectively, (for the common economy of farmers in this respect, is the greatest of losses,) would seem to be a warm range of stabling, and the proper machine for cutting hay or straw, and breaking or grinding the grain. Whatever may be the method of feeding animals, it is indispensable for their comfort or thrift that they should be provided with comfortable, well ventilated, but not *hot* stables. The man who thinks to keep an animal of any kind in good condition, exposed to the cold and storms of our winters, must have paid little attention to some of the first principles of animal economy, and must have provided himself with an extra supply of fodder, as it will surely be needed. A little attention to keeping up the animal heat by comfortable stables, would save much food that is now required for that purpose, and which is far more costly than providing the stables.

The implements necessary for feeding animals in this way, are not costly. A straw cutter worked by hand, or what is better, by horse power, will convert, in a few hours, hay or straw enough into chaff to last for days or weeks. The grain can be bruised or ground at our corn cracker mills, or some of those mills invented for the farmer's use and adapted to such purposes, may be readily procured. It surely is not a hard way of feeding horses, to mix the food, cut straw or hay, and meal or roots, in a comfortable stable; and experience will convince any one, as it has us, that it is an expeditious one. One of the most decided advantages of a chaff cutter, particularly if worked by horse power, is the facility with which the thick, and usually wasted stalks of Indian corn, may be converted into the most palatable and nutritious food. That great improvements may be made in our methods of feeding animals, few will doubt; that the importance of the subject demands more attention than it has yet received, will not be disputed; and any man who will furnish facts, having a bearing on the matter, will confer a benefit on his fellow farmers.

FINE STOCK GOING WEST.

THE farmers of the West appear to understand their true policy, and the advantages of their position. There is no part of the world offers such advantages for raising stock, as the whole valley of the Mississippi. We find in the Michigan City Gazette, that "Mr. T. J. Field has lately returned from Onondaga county, N. Y., bringing with him eleven hundred sheep, principally fine Saxons, and a very superior lot. Mr. Field availed himself of the opportunity of attending the great Agricultural Fair at Rochester, and was much gratified with the exhibition. He bought at Auburn a beautiful Durham heifer, two years old, and weighing 1,400 lbs." Northern Indiana has many public spirited farmers, and any district that has such men as Robinson, Steinbergen, Clark, Field, and others, will be sure to go ahead.

STATE OF AGRICULTURE IN EASTERN MASSACHUSETTS.

THE following brief notes were taken during a late flying trip.

A steady general improvement is apparent. The soil of this section is generally of a hungry, gravelly nature, yet varying considerably in its quality and powers of production. The farmers are so dividing their lands, as to adapt every foot to its most appropriate crop. The first settlers of the country and their immediate descendants, committed a great error in clearing too much of the land. The forest was cut off, and cultivation introduced, where the plow ought never to have entered. The consequence was, a scarcity of wood and timber, and leaving a great deal of unproductive soil. But the present enlightened generation are beginning to correct the mistakes of their fathers. Their wood-lands are protected with almost as much care as their corn-fields; the seeds of the pine have been planted in some of their old worn out fields; the barren knolls which were once such disagreeable objects in the landscape, are becoming covered with beautiful evergreen groves. An agreeable aspect might be given to almost every district of country, if due care was only taken to adapt the various productions to the locations to which they are best suited. Such a piece of ground, say, is not worth cultivation; it will not, perhaps, produce five bushels of rye to the acre. Then let it go to wood; and if it will not bear hard wood, try pine; if it is too poor for white pine, take pitch pine, which even the most barren sands of Cape Cod produce in abundance. Wood will soon be more plenty here, than it was twenty years ago, and with the improvements in culinary utensils, and in warming apartments, the expenses for fuel are and will be less.

At Bridgewater we passed through the beautiful village where the Plymouth Co. Ag. Society holds its annual exhibitions, and which we have taken much pleasure in attending,

"In days of auld lang syne."

This section of country abounds in peat bogs, or swamps. The natural growth of these swamps is ash, maple, yellow birch, &c. They are also the home of several varieties of indigenous grapes, some of which are found to be more productive and nearly equal in quality to any of the exotic sorts, when raised in the open air. The soil of these swamps is composed of vegetable substances, and is in some places of very great depth. It is found to be highly valuable in making compost manures, and as a dressing for the up-lands. When first taken from its bed, this soil, or "muck," sometimes contains an acid, which must be extirpated before it is useful as a manure. The use of alkalis, ashes, &c., are found valuable in developing and increasing its fertilizing properties. Exposure to the action of frosts and rains for a time, it is found dissipates the acid and renders the food for plants which the soil contains, available. Great care is taken to save all the animal manures; there are cellars under most of the barns and stables where the manure is mixed with bog soil, &c., its properties not being permitted to waste away by rapid fermentation.

Much attention has been paid to reclaiming the swampy and boggy lands of this section, by draining, eradicating the wild growth, and substituting the cultivated grasses in its place. The most productive grass lands in this neighborhood, are of this character. When once brought well into grass, they require very little care or trouble to keep up their productiveness for several years. When they require renovation, it is found to be best to plow them with a sharp plow, subverting the sod as smoothly and evenly as possible, and sowing grass seeds immediately on the furrows. The month of August is found to be the best season for this purpose. The lands are then generally sufficiently dry to work on, and the young grass has ample time to strike a deep root for itself before winter sets in.

The farmers here, usually deem it most profitable to cultivate but little land, and manure that highly. They raise Indian corn enough generally, for their own use, and as large crops of this grain are got here as in any part of the country. We found in this neighborhood, a variety of corn which is believed to be better adapted to this latitude than other kinds. Although a small sort, it is found to yield abundantly, from sixty to eighty bushels to the acre being frequently produced.* The stalk is small, which makes the fodder particularly valuable for stock.

The town of Bridgewater is distinguished for its various mahufactures of iron, cotton gins, &c., and also for its excellent Normal and other schools.

At Easton are the shovel works of Oliver Ames, the most extensive works of the kind in the United States. Mr. Ames has here invested a capital of one hundred thousand dollars, and has brought the manufacture of shovels and spades about to perfection. None of the English articles of this kind that we have met with, are equal to his. He sends his articles to all parts of the Union, and even to the West Indies and South America.

Agricultural Implement Establishments—Growth of Boston, &c. Few cities of the Union have been so uniformly and constantly prosperous, as Boston. A large amount of surplus capital has enabled her to go through all the revolutions in business unscathed; and the construction of the numerous rail-roads which connect her with the interior, bring to this market the products of a vast extent of country, and increase the growth and business of that place. It is said that there was more capital expended in building in Boston, last year, than there ever was in any previous year, the number of buildings erected being eleven hundred and eighteen.

There are several noted establishments for the sale of agricultural implements in this city. Jos. Breck & Co., proprietors of the New England Farmer, have a large seed store, and a large assortment of agricultural and horticultural implements.

Ruggles, Nourse & Mason occupy a large hall over Faneuil Hall Market. The establishment of this concern is on a very large scale. Their sales of implements last season, amounted to forty thousand dollars. Their articles, which are manufactured at Worcester, appear to be of the very best character and finish. Among the articles which we particularly noticed as being valuable improvements, were their sub-soil plows, the form and structure of which they have so modified and improved that they can afford to sell them at from $8 to $15, according to the size. The smallest and cheapest size is adapted to the draught of a yoke of oxen, or pair of horses, but in ordinary soils would answer for four oxen or horses. Their first sub-soil plow they imported from Scotland. It was a ponderous thing, and cost, including charges of transportation, $80. We are of the opinion that the use of the sub-soil plow will be found very beneficial. By it the ground may be thoroughly loosened to the depth of a foot or more if desired, below what is reached by the common plow. It is designed to work in the furrow of the common plow, and loosens without bringing the cold soil to the surface. On lands where plants may suffer from want of moisture, this stirring the soil to a greater depth will enable them to strike deeper root, while at the same time it promotes the exhalation of moisture from below, and brings it within the reach of the roots of the plants. On the other hand, where the sub-soil is too retentive of water, this same operation allows the surplus to descend into the earth, so that the plants are not injured by too large a quantity coming in contact with their roots.

Messrs. R., N. & M., have been for sometime noted for the excellence of their plows for common plowing. Their Eagle Plow has been very successful at the agricultural exhibitions and plowing matches, in Massachusetts and elsewhere. They have also a new plow which they call the Improved Eagle, which is calculated to do more work than the Eagle. This received the first premium at a very particular trial made in Essex county, Mass., in October last.

We also noticed at this establishment, a churn, called "Kendall's Churn," which seems to be a decided improvement over any other kind we have seen, not excepting Gault's, to which we have heretofore given the

* A sample of this variety of corn may be seen at the Cultivator office, which we should be happy to distribute among those who will give it a fair trial.

preference. Its cost is from two to three dollars, according to size.

The large establishment of Messrs. Prouty & Co., we had not time to visit.

At Worcester we visited the implement manufactory of Messrs R., N. & M. Any farmer or mechanic who may have the opportunity, would find an hour or two spent here much to his advantage. The wood-work of their plows is all got out and fitted for the plow by machinery, even to the making of every mortice and tenon, and boring every hole. Being thus made, all the plows of the same pattern run exactly alike, and if any part of the plow should break, any person can put in a new corresponding piece, (by keeping the part on hand,) with the greatest precision. The machine which so admirably performs the work of preparing the wood part of the plows, was invented by Mr. Matthews, a very ingenious mechanic in the employ of Messrs. R., N. & M.

The metal which Messrs. R., N. & M. use for making their plowshares, is old rail-road wheels, which they think is the very best material for this purpose. They *chill* the edge of the share, so that it becomes harder than case-hardened steel, and will wear to a sharp edge. They have shares of different width and shape for their plows, to fit the different soils, and for plowing bog meadows they use a share to which a strip of steel is nicely fitted, that forms the edge, and may be ground sharp. This would make their plow exactly the thing wanted for plowing the prairies of the west.

In passing through the manufacturing districts of Massachusetts, one cannot fail to be struck with the indications of comfort and happiness which the mechanics and operatives exhibit. Their dwellings are neat, tasteful, and convenient; and their yards are ornamented with evergreens, shrubs, and flowers, which are always tokens of a cultivated mind.

In fact, the mechanics of Massachusetts occupy a very prominent position for respectability and influence—a position to which their character and intelligence evidently entitles them; and it is gratifying to see this class of citizens filling, with so much honor to themselves, their proper station in society.

DISEASE IN POTATOES.

Dr. G. B. Smith, a name of weight in the agricultural world, in a letter to an editor in Baltimore, suggests in relation to the present extensive rot in the potato, (which he says has destroyed large quantities of Mercers and Pink-eyes this season, in that section of country,) that it is caused by "hot damp weather, as the potato is approaching maturity," and that the disease is a "*fungus* belonging to the same class of vegetable growth as rust and smut in wheat, smut in corn, mould and mildew." He says, "I would recommend that all diseased potatoes be carefully taken out and thrown away, that lime, either quick or air slaked, be sprinkled among the healthy potatoes, just enough to whiten their surface slightly. * * * The appearance of the disease clearly indicates its character, and the remedy seems almost as clearly a matter of course."

We think these suggestions are important, and hope they will be acted upon at once, where such a remedy is required. That it was owing to unusually hot and moist weather succeeding that which had been remarkably dry as well as warm, seems probable; and we hope the subject will not be lost sight of, until the true character of this formidable disease is established, and, if possible, some check to its spreading discovered.

THINGS OF IMPORTANCE.

To have your cellar well secured against frost; your windows and doors in good repair; your woodhouse with at least a year's stock of fuel cut and piled in it; your yards warm and comfortable; your stables clean and well ventilated; your farm implements carefully cleaned, repaired, and housed; your district school attended to, and every thing provided to facilitate education; useful and instructive reading for long winter evenings; a kind and benevolent heart to the poor; plenty of food for your animals; the receipt of an agricultural journal; and though last, not least, exemption from debt, and a conscience at peace with God and man.

HINTS TO YOUNG MEN.

"Who aims at excellence will be above mediocrity; who aims at mediocrity will fall short of it."—[Anon.

Be industrious. We do not mean here the industry of the hands alone; but that perseverance in whatever we undertake, that is the sure precursor of ultimate success. Never allow the mind or the body to stagnate; activity is necessary to the health of both. Always have some worthy end in view, in whatever you undertake; remembering that to fail with good intentions, is more honorable than success in an evil cause.

Cultivate your mind. It is of more importance to the young, that their reading should be select, rather than extensive. One volume well understood, on any important topic, is better than half a dozen merely skimmed. There are many subjects of general utility, with which every man should have a partial knowledge at least; but it is one of the great faults of modern education to spend too much time on studies that rather burden and clog the mind, than strengthen and inform it for life's practical duties. Reading, or studying without some definite aim, is likely to lead to few useful results. How many men there are who have spent a large part of their lives over books, of whom it may be said, "they remember a mass of things, but nothing distinctly." It is possible to cram the mind with masses of indigestible materials, destructive alike to a healthy and a vigorous action of the intellectual powers. Such is not the cultivation of the mind required by a young American farmer.

Be economical. No matter if your parents are worth millions, it is not the less proper that you should understand the value of money, and the honest, honorable means of acquiring it. What multitudes of young men, particularly in our cities, make fatal shipwreck of reputation, health, and eventually of property, by a neglect of this simple maxim. They are aware that their fathers obtained their wealth by habits of industry, but they are ashamed of the very name. They forget that wealth in this country passes rapidly from one to another, and that he who is rich to-day may be poor to-morrow; or that he who relies on wealth amassed by his father, may end his days in a poor-house. It is for the young here to say whether by industry and economy he will secure competence and respectability, or by extravagance and idleness become a worthless beggar and sponging outcast.

Be just. In the course of life a man frequently finds his interests or his opinions crossed and thwarted by those from whom he had a right to expect better things, and the young are apt to feel such matters very sensibly. But be not rash in your condemnation. Look at their conduct carefully, and be just to the motives that prompt it. You may find, that were you placed in their position, the course you now condemn would be the one proper for you, and the one you would be under obligation to pursue. A little cool consideration would avoid much censoriousness.

Shun avarice. One of the most disagreeable characters on earth, is that of the grasping, avaricious, penurious man. Generosity is perfectly compatible with economy; and the means which enable some of our most noble hearted, generous men, to do so much to benefit and bless mankind, are obtained, not by closefisted penuriousness, but by economy. The distance is not greater between the zenith and the nadir, than between the covetous and the economical man: the first banishes every just and honorable feeling from the heart, the other fosters and ministers to them all.

Determine to be useful. No matter what may be your condition in life, you have an influence, and that influence should always be exerted in a proper way. The young have no right to fold up their arms, bury their talent, and become the drones of the social hive. Aim high, but with prudence; act with determination and perseverance; let no obstacle drive you from the path of honor and duty, and you may be sure of eventual success. Riches are not within the reach of all: competence is; and the latter condition is preferable in every respect to the first. Remember the Deity helps those who help themselves, and that utility is the great end of human exertion.

DRY OR GREEN WOOD FOR FUEL.

MESSRS. EDITORS:—I lately observed in a New England paper, an elaborate argument by a man apparently in sober earnest, in favor of using green wood for fuel in preference to dry; and I find there are many who entertain similar ideas. Although I have no doubts on the matter myself, I should be pleased if you would give your opinion on the subject through the Cultivator.

INQUIRER.

An old book, the "Prompter," recommended that *back-logs* should be green, and the reason assigned was, that as only the *front* of the log should burn, a green one was better than a dry one, as the latter would be apt to get on fire on all sides at the same time. As back-logs have, however, gone out of fashion, this, the only admissible case in which green wood was the best, may be considered as testimony in favor of dry wood for fuel in all other cases.

Wood seasoned or dried at a temperature of 100° weighs about one-third less than green wood; for while some kinds will lose only about 25 per cent., there are others that will lose 50 per cent. As a cord of green wood will weigh on an average more than 4,000 pounds, every cord will contain some thirteen hundred pounds of water, or about one hundred and seventy gallons. This water must be raised to the boiling heat, and expelled by evaporation before the wood containing it can possibly burn. All the heat required for this purpose passes off in the latent state, and is lost to all useful purposes. The man, therefore, who burns green wood, loses precisely as much caloric, or in other words, of his wood, in every cord, as would be required to boil away 170 gallons of water. What part that would be, he can estimate for himself.

But, says the acvocate of green wood, all the fluids of the living tree are not water. The sap holds in solution sugar, gum, starch, resin, &c., all of which are inflammable substances, or will burn. This is true; but none of these substances are lost when green wood is dried; all remain for the benefit of the fuel; on the contrary, none of these will burn until free from the water holding them in solution, and much of them is driven off by the heat required for that evaporation. View the matter then as we may, there is a loss in burning green wood.

The best wood for fuel is that which is cut green, split into suitable sizes, and thoroughly and quickly dried, with as little exposure to rain or moisture as possible. There are some who cut and split their wood while in a sound and green state; but this is left exposed to the weather perhaps year after year, until the substances we have named as originally existing in it, and which contribute so much to its value, have become wasted, and even the texture of the wood itself partially changed. Such wood is of little value; indeed, it may be doubted whether in this condition it will afford as much heat as when green. Wood, too, is frequently damaged by being cut when full of sap, and instead of being split and prepared for drying, it is left in logs, in which state the juices ferment, sour, and this chemical change seriously injures the wood for fuel. Experiments carefully made, have demonstrated that dry wood will keep the thermometer at a higher range, and for a longer time, than green wood will do, pound for pound of each being used in the trials. Dry wood should not be made too fine, when economy in burning is consulted. If too fine, the heat will be too violent, in proportion to its duration, whereas by allowing sticks of suitable size, the heat will be more equal and permanent. Our experience and our experiments have convinced us that burning green wood is vexatious in practice and miserable in economy.

WINTERING FARM STOCK.

MESSRS. EDITORS—As we are now in the foddering season, I offer a few remarks on the subject of wintering stock. Having noticed in various sections, a want of attention on the part of the farmer, it may not be amiss to admonish him at this season of the year.

Many seem to say by their management, that young stock will not grow and thrive in winter, and some are compelled to skin more or less before spring, for want of attention. Let no more stock be kept on a farm than can be at all times in thriving condition, with shelters to protect them from the chilling blasts of winter, especially for the young; give them the best of hay, morning, noon and night; and if they do not thrive, a little grain may not be amiss. Calves may be fed oats in winter without injury, say a pint per day, till accustomed to grain; then increase the mess till you give a quart at morning and night. Calves thus wintered, with good pasture the following summer, when dressed in the fall, will weigh from five to six hundred weight. Many of our best colts are injured by the first wintering, and are not worth as much in the spring as when weaned in the fall. Thus you see a loss of fodder and growth, and many times midsummer is past before they begin to thrive. The growth of the stock is the profit of the farm, therefore daily care should be taken to see that they are constantly improving. Let every foddering show that your stock is gaining, and in the spring you will feel rewarded for your winter's toil.

Dutchess co., Nov. 23, 1843. J. G. W.

SOWING INDIAN CORN BROADCAST

MESSRS. GAYLORD & TUCKER—Having seeen sundry interesting communications in your valuable journal, relative to the immense yield of corn sown broadcast, I am induced to give you "my experience," though it is the result of an experiment on a small scale. In the spring of '42, I prepared two squares in my garden, each 20 feet by 30, and sowed them with corn—about half a gallon to each square—though this is too much. When about waist high, I commenced pulling it up by the roots, and feeding it green, to a fine Durham heifer and some pigs; the latter devouring it as greedily as the former.

I pulled up and resowed these squares four times during the season, and kept the animals in the finest order, without any thing else worth naming. This year I did the same thing; and I am satisfied nothing will produce *half* as much as corn thus planted or sown. Every time I stripped a square, it was forthwith highly manured, and at once spaded up and resown; and this season I had corn thigh high, when frost came. I generally fed the corn as it was pulled up, but sometimes, for a relish or change, it was cut up and seasoned with meal and salt.

Memphis, Tenn., Nov. 23, 1843. ALPHA

CARE OF BEES.

MESSRS. GAYLORD & TUCKER:—These interesting insects occupy a part of our garden. I prefer having them hung on a shelf supported by a frame, which prevents insects, the ants in particular, from climbing to them. I spiked pieces to the rafters of an out-house, on the north part of the garden. These pieces have the same pitch of the rafters; to these I pinned perpendicular pieces of boards, with cross pieces at the bottom; on these I placed a shelf, and affixed a roof of boards extending from the out-house roof.

Persons wishing their bees to swarm more frequently than they do under cover, may effect this object simply by exposing them to the rays of the sun. I speak from experience. Last summer I had two hives, neither of which swarmed during the summer. In the fall, I parted with one of them, and in the spring lowered the remaining hive, so that the rays of the sun had a strong power on the hive, whenever it shone, and it produced three swarms nearly at the same time, viz: on the 23d, 24th, and 26th days of June.

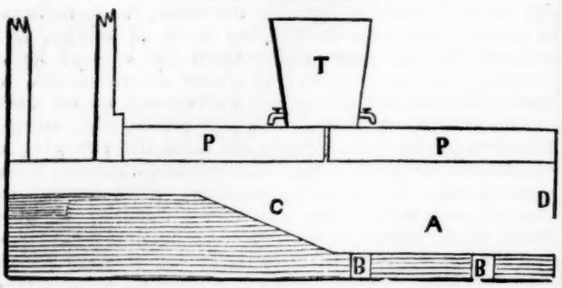
The grape vine is a pretty thing for bees to alight on when they swarm, and it should be planted near them for that purpose. I have never hived swarms with so little trouble, as when they alighted on the grape vine.

JOHN M. HARLAN.

Chester Co., Pa., July, 1843.

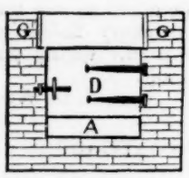
There are two silk factories in operation in Richmond, Indiana, which manufacture the best silk for dresses, gentlemen's vests, handkerchiefs, &c.

Domestic Economy.



Sap Boiling Apparatus—Side view.—(*Fig.* 12.)

EXPLANATION.



Front view. (*Fig.* 13.)

A. Fire-Place or arch.
B. B. Air flues, going through under the wood to clear the coals and admit air.
C. Space for burning out extra coals.
D. Door to prevent the cold air striking the pans.
G. Wall to prevent the cold air striking the sides of the pans.
P. P. Pans nine inches deep; much better than shallow ones.
T. Tub for feeding.

Sheet iron covers may be used to advantage for shutting out cold air.

To manufacture on a large scale, use another pan, or increase the width.

Messrs. Gaylord & Tucker:—I write you at this time, to communicate to you a plan (figs. 12 and 13,) for boiling sap for sugar, which we have used and find to be a very great convenience and improvement on the common mode of boiling. The advantages are: 1st. It saves a large amount of fuel; 2nd, hemlock, or other soft wood, if cut in season to dry, is as good as any; 3d, the manner of admitting air causes a more complete and rapid combustion with any kind of fuel; 4th, the neatness of it in guarding the boiler from smoke, soot, coals and ashes; and last, that a person can tend it without being burned and smoked almost to death. I have a shed built over this furnace, which forms a safe and cheap place of storage for the tubs, during the year.

I am sure that if this plan was generally adopted, or some other as good, it would greatly increase the amount of home manufactured sugar, and save much to the people of the northern states, by making the manufacture of it a pleasure instead of an irksome task.

Royalton, Vt., March 30, 1843. An Observer.

MANUFACTURE OF MAPLE SUGAR.

The maple sugar exhibited by Mr. Joel Woodworth of Jefferson county, and which received the first premium of the State Ag. Society, at Rochester, was far superior to any thing we had before seen, being nearly equal in whiteness, purity, and grain, to the best refined loaf sugar. The following is the statement furnished by Mr. W., of the manner of making and clarifying this superior sugar:

"In the first place, I make my buckets, tubs and kettles all perfectly clean; I boil the sap in a potash kettle, set in an arch in such a manner that the edge of the kettle is defended all around from the fire; I boil through the day, taking care not to have any thing in the kettle that will give color to the sap, and to keep it well skimmed. At night I leave fire enough under the kettle to boil the sap nearly or quite to syrup by the next morning; I then take it out of the kettle and strain it through a flannel cloth into a tub, if it is sweet enough; if not, I put it into a caldron kettle, (which I have hung on a pole in such a manner that I can swing it on and off the fire at pleasure,) and boil it till it is sweet enough, and then strain it into the tub and let it stand till the next morning; I then take it and the syrup in the kettle and put all together into the caldron and sugar it off.

"I use, to clarify, say 100 pounds of sugar, the whites of five or six eggs well beaten, about one quart of new milk, and a spoonful of saleratus, all well mixed with the syrup before it is scalding hot. I then make a moderate fire directly under the caldron, until the scum is all raised, then skim it off clean, taking care not to let it boil so as to rise in the kettle before I have done skimming it; I then sugar it off, leaving it so damp that it will drain a little. I let it remain in the kettle until it is well granulated. I then put it into boxes made smallest at the bottom, that will hold from 50 to 70 pounds, having a thin piece of board fitted in two or three inches above the bottom, which is bored full of small holes to let the molasses drain through, which I keep drawn off by a tap through the bottom. I put on the top of the sugar in the box a clean damp cloth, and over that a board well fitted in so as to exclude the air from the sugar. After it has done, or nearly done draining, I dissolve it and sugar it off again, going through with the same process in clarifying and draining as before."

MAKING BUTTER IN WINTER.

Our correspondent, "G. C. M." of Greenfield, Mass., after alluding to the difficulty often experienced in making butter in cold weather, gives the method pursued by his family, as follows:—"When the milk is strained, it is put upon the stove and heated to near or quite scalding heat, and then set away for the cream to rise. After sufficient cream is gathered for a churning, it is placed where it will be kept warm a sufficient time for it to sour, (usually about 24 hours,) when it is subjected to the process of churning, which rarely occupies more than 20 or 30 minutes. Previous to our pursuing this method, it often required from two to three and sometimes four hours to accomplish the same result."

In this way, we doubt not, as fine yellow butter may be made in winter as in summer. Mr. Merrifield, a farmer of this county, by whom we are supplied with butter of the finest quality, lets the milk stand twelve hours, when it is removed to the stove, and scalded over a slow fire to near boiling heat. The pans are then removed to the cellar to cool. By this method he finds no difficulty in making good butter in winter.

TO MAKE BISCUIT OR ROLLS.

Messrs. Editors—I would be glad to acquaint yourselves and the readers of the Cultivator, with the following receipt (not generally known, I believe,) for the making of good and wholesome biscuit or rolls. It has been in use for a length of time with some of my friends, and is their usual method of making bread in the above mentioned forms. Should any fail on the first or second trial of the experiment, they may be assured of a defect in some of the materials employed, or a want of strict compliance with the terms of the receipt, which are as follows:

Put two tea spoonsful of cream tartar finely pulverized, into one quart of dry flour, then dissolve three fourths of a tea spoonful of sup. carb. of soda into warm new milk, sufficient when mingled with the flour, to make the paste of the ordinary consistence for soft biscuit; then mix and bake in the form of rolls or biscuits, for about twenty minutes. These directions, if strictly followed, will render the bread extremely light and of a superior whiteness and flavor. H. L. Y.

East Avon, N. Y. Dec. 19.

"NEST EGGS."

"G. C. M." informs us that he manufactures "nest eggs" as follows:—"Take eggs and make holes in the large ends about one-fourth of an inch in diameter, and in the small end make them the size of a pin; by blowing, force out their contents. Then take calcined gypsum and Spanish white, about equal parts; mix them with water to the consistency of stiff paste, and fill the shells quite full with it, and place them in a warm place to dry. When dry, the substance will be quite hard. If the hens chance to break the shells of such eggs as

these, there still remains good formed ones, and those of better consistency than chalk."

TO COOK A BULLOCK'S HEART.

Wash it well and dry it thoroughly; then prepare the seasoning, made with crumbs of bread, thyme and parsley, or any meat herbs, and an onion chopped fine, with a little suet and some pepper and salt, all mixed together and put into the heart, the opening of which is to be sewn up so as to prevent the stuffing from getting out. Bake it, and while it is cooking, rub it occasionally with lard, to prevent the skin from becoming too hard. —[Condensed from an article on cottage economy and cookery, in the Journal of the Royal Ag. Soc.]

BACON AND CABBAGE.

This is a very common dish in this country, particularly in the south and west. The articles are commonly put into the pots separately, but the Journal above referred to, says "it will be found a great improvement, if instead of that, a hole be cut in the head of the cabbage, and a quarter or half a pound of fat bacon is thrust into it as a plug. The head of the cabbage should then be tied over so as to confine the leaves, and the cabbage boiled in a napkin, to prevent all escape of fat, which will thus be imparted to the vegetable, and render it so much more mellow and savory, that any housewife who tries it will never dress it in any other way."

TRIPE AND SOUSE.

TRIPE, after being scoured, should be soaked in salt and water seven or eight days—changing the water every other day—then boil it tender, which will take eight or ten hours. It is then fit for broiling, frying, or pickling. It is pickled in the same manner as souse.—*Mrs. Ellis's Housekeeping Made Easy.*

SOUSE.—Take pigs' ears and feet, clean them thoroughly, then soak them in salt and water for several days. Boil them tender and split them—they are then good fried. If you wish to souse them when cold, turn boiling vinegar on them, spiced with pepper-corns and mace. Cloves improve the taste, but turns them a dark color. Add a little salt. They will keep good pickled five or six weeks. Fry them in lard.—*Ib.*

Veterinary Department.

BLACK LEG IN CALVES.

MESSRS. EDITORS—Having seen a number of articles in your excellent paper concerning a disease called the black leg, (which is so formidable an enemy to the rearing of calves,) and knowing that any light on the subject would be very acceptable, I feel in duty bound to give you what has come to my knowledge, and what little I have seen concerning this disease, the remedy, &c. This disease generally attacks the fattest and best; therefore it is hardly for the interest of the farmer to keep his young cattle in very high order. It has proved fatal in every case in my knowledge with one exception. We have met with some loss every year since my remembrance, in this neighborhood, from this disease, and some years to quite an extent. We have generally practiced bleeding in the fall as a preventive during winter, and for a few years I believed we had a sure remedy. I practiced it four or five years, and never lost any in the time, except those that by mistake or for some reason, were not bled; but in the winters of 1841-2, I undertook to winter thirteen calves, all of which had been thoroughly bled; and before spring, five of them died of the black leg; they were kept in a small yard, and not permitted to run out any, and were housed nights, and kept in good order; I thought it owing in part to their close confinement and being in good flesh, and last winter I let my calves have more chance for exercise, obliging them to go eighty rods for their drink; but notwithstanding, about the middle of the winter I discovered that one of the best had every symptom of the above disease, and I counted him as good as dead; but at the suggestion of a neighbor, I gave it a strong dose of lobelia, and got him on his legs and made him exercise much against his will, and within one hour he began to eat hay and got well immediately. G. S. P.

Randolph, Vt. Nov. 1, 1843.

BLIND TEETH IN HORSES.

REFERRING to an article on this subject, in the Dec. No. of the Cultivator, Mr. L. PHYSICK of Maryland, in a letter to us, says:

"I observe that you are desirous to obtain all the information you can collect about "blind teeth" in horses. This was a matter entirely new to me till last summer, when one of my horses had nearly lost the use of his sight; which I attributed to over work, he being of a restless disposition when at work. Some time after the predisposition to blindness was discovered, (the sight of one eye being almost, if not entirely gone,) he was sent to the blacksmith to be shod. The smith told the boy, that if a certain tooth, pointing it out to the boy, was not extracted, the horse would soon be entirely blind; and without my assent, took a hammer and a piece of bar iron, as described by the boy—rather barbarous pulling—and knocked it out. The boy said that there was no evidence of pain experienced by the horse, and that the tooth dropped out with the first stroke of the hammer. Whether this was the cause of blindness or not, I cannot say; but the horse very shortly afterward recovered his sight, which since then continues good."

REMEDY FOR BARREN SOWS.

WE here give another extract from the letter of Col. BONNER, alluded to in another part of this paper:

"While writing, I have thought it not amiss to give you the favorable results of an experiment of mine upon a fine Berkshire sow, purchased last fall of Mr. C. N. Bement, near your city. She was over two years old when I bought her, and although she ran regularly with his boars she had never produced a litter of pigs, or had even been in pig, to his knowledge. With a full *knowledge* of these facts, I purchased her. On the first of November last, I found her in season for the boar, and turned her in the pen to one of mine; he served her repeatedly for two days. In about twenty days I found her again in season for the boar, and was persuaded by many friends that she was too fat to breed. I put her again to the boar, and turned her out in the woods *without any food*, to reduce her. She continued to reduce daily, and got *quite poor*, but was in season for the boar every eighteen to twenty-one days, and was as regularly served by different boars, until about the 10th of June. I then concluded to half spay her; or, in other words, to take out one of her ovaries, or prides, as we Georgians call them. I did so by making or cutting an incision in her right side, and took from her as large a pride as I ever saw. In the latter part of July thereafter, I discovered her again in heat for the boar, and turned her into a pen to my imported boar, Ontario, and I am pleased to tell, that she not only proved in pig, but that on the 13th inst., she produced me six fine pigs—five sows, and one boar pig. I would further remark, that she had on previous occasions been served by Ontario, and that her condition as to flesh, &c., was about the same it had been for several months, and the treatment precisely the same. It is the first and only instance of the kind I ever heard of, and thinking it possible that some of your many readers might have a sow similarly constituted, concluded to give you the above fact."

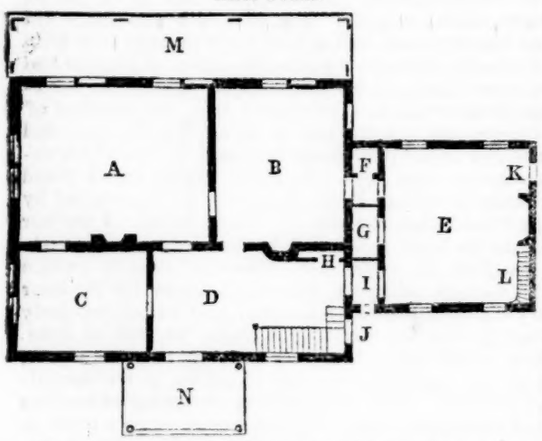
We know of several instances where great disappointment and loss has been caused by the failure of sows to breed. Although, so far as we know, his remedy is perfectly novel, it is based on strict physiological principles. Excessive ardor, or frequently repeated sexual connection, is usually a hindrance to impregnation, and the removal of an ovary, by lessening the first, had a direct tendency to produce the result desired. It is more than possible that the reduction of flesh might have been also useful, as the pressure of fat usually closes the Fallopian tubes and effectually prevents impregnation

COTTAGE RESIDENCE,

Now erecting for DR. JOHN A. LOCKWOOD, U. S. N., *near New-Castle, Del., looking from the Northwest.*

MESSRS. GAYLORD & TUCKER—I herewith send you the plans of a Cottage Residence now erecting near New Castle, Delaware, for Dr. JOHN A. LOCKWOOD, U. S. N. The building is of brick; to be stuccoed and colored in imitation of stone. The whole area under the principal building is cellar room. The building is 28 by 32 feet, and the wing 16 by 19 feet. On the east side looking toward the Delaware, is a veranda the whole length of house, (32 feet,) and on the west, or entrance front, a porch 8 by 10 feet. The floors of veranda and porch are of stone.

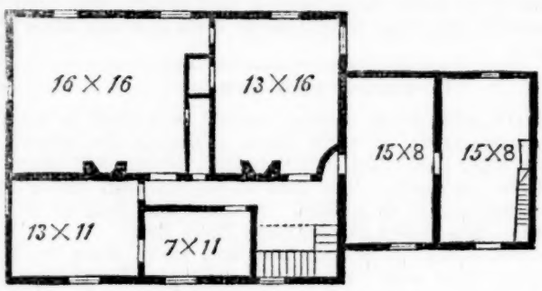
River Front.



Entrance Front.—Plan of Principal Floor.—(Fig. 4.)

A. Drawing Room, 20 by 16.	H. Cloak and Umbrella Closet
B. Dining Room, 13 by 16.	I. Wing Entry.
C. Library, 13 by 11.	J. Door to Cellar.
D. Vestibule, 18 by 11.	K. Kitchen Door.
E. Kitchen, 15 by 16.	L. Servant's Stairs.
F. China Closet.	M. Veranda.
G. Kitchen Pantry.	N. Porch.

By referring to plan of principal floor, it will be seen that the casement windows, opening upon veranda from without, have the appearance of double windows, whereas nothing but single casement windows are seen. This was done for two reasons; first, that the river front might present an open and inviting appearance, (the real and false windows all having venetian blinds,) and secondly, that the real windows might be in their proper places in reference to the Drawing and Dining Rooms. The same device is resorted to in the Library, (C.) while a real double window is seen in the end of the Drawing room, (A.) This must answer as a cheap substitute for a bay window, which would have been desirable on some accounts. Many would also prefer folding doors between drawing and dining rooms, but in this instance they were not desired.



Chamber Floor.—(Fig. 5.)

The contracts are all made, and the building is now in progress of erection, the cost being a trifle over $2,000.

My intention has been to design a cottage that should be economical in its cost, and yet of a character that would harmonize with that beautiful rural district—its undulating bosom, its ancient and luxuriating thorn hedges, with an occasional "brave old oak," or verdant grove of fruit or forest trees, and the whole skirted on the east and south by the broad waters of the Delaware. I trust I shall not be chargeable with the crime of having done any thing to mar the fair face of that beautiful landscape. Yours with esteem,

Newburgh, Sept. 23, 1843. T. M. NIVEN.

TOBACCO CULTURE—INFORMATION WANTED

WE shall be glad to receive a reply to the following inquiries, from some one familiar with the cultivation of Tobacco:

EDITORS OF THE CULTIVATOR—Will you, or some of your southern correspondents, give through your valuable paper, some information relative to the culture of Tobacco, in the latitude of New-York. What kind of soil—time of planting—manner of curing—value in market, and where can seed be procured?

Yonkers, Dec. 1, 1843. H. S.

THE U. S. Senate has a superb Brussels carpet made in Germantown, near Philadelphia, of superior texture and rich colors. Scarlet ground with yellow stars. The new President's room has another splendid carpet made in Thompsontown. An extensive manufactory of Brussels carpeting and rugs is carried on in the Sing Sing prison.

BY a measurement lately made by one skilled in curiosities, it is found that the silk worm's thread is so fine that one drachm of it will extend a distance of one hundred and eighty-five miles and ninety-two feet, while the same weight of a common grass spider's thread will reach two hundred and twelve miles and seventy-four feet.

"FORTUNE," A PAULAR MERINO BUCK,

Bred and owned by SOLOMON W. JEWETT, *Esq. of Weybridge, Vermont.*

MESSRS. GAYLORD & TUCKER:

The Paular Merino Sheep, when originally imported from Spain into this country, were, compared with the other Spanish fine wooled sheep, large strong animals, with heavy fleeces, containing a considerable quantity of jarr or coarse hair. The form of this variety was good, but they were characterized by a huge dewlap extending from the jaw to the brisket, so plated and doubled, that if severed from the neck, it would extend to twice the length of that member. Numerous large folds or wrinkles in the skin, extended over the neck, and occasionally on other parts of the body. An ugly head, the face often singularly wrinkled; the former surmounted with massive horns, completed the portrait. The wool was exceedingly compact, gummy, black, and hard to the feel when grasped externally. Their weight of fleece among prime sheep of the variety, was from six to seven pounds of wool, (washed on the back,) to the buck, and from four to four and a half, and even five pounds, to the ewe. They were found to bear the cold winters and changeable climate of the U. States, better than any other Spanish variety; and though coarser wooled, and more unsightly than some others, they have ultimately obtained the preference over all.

By far the largest portion of Paulars introduced into the U. States, and perhaps the only large importation of which any authentic history remains, was that made by the Hon. WM. JARVIS, in 1809 and 1810. This gentleman was acting as the Consul of the U. States at Lisbon, at the time that the Spanish government, pressed by the victorious French, was driven to raise funds by confiscating and selling the property of the Spanish nobles who had espoused the cause of the invaders. The flock called Paulars, (from the Paular convent,) were the property of the infamously celebrated Godoy, the "Prince of Peace." They, with two or three other celebrated flocks, (the Montarco, the Negretti, and the Aqueirres,) were in the vicinity of Badajos, and were daily thinned for the subsistence of the Spanish troops. The Paulars were reduced to 7,500, when fortunately they were rescued by three individuals. These were the English Minister, who obtained and forwarded 4,000 to his Sovereign; Consul Jarvis, and Gen. Downie, an Englishman, who purchased the remainder. Mr. Jarvis shipped about 1,000 Paulars to the U. States, with drafts from the other three flocks abovementioned, and 200 Escurials. Some Paulars purchased of Gen. Downie, were subsequently imported from Spain into the U. States.

It may be well here to state that the sheep imported by Chancellor Livingston, were not Paulars, as has been supposed by many, but were from the Rambouillet flock of Merinoes in France. I do not know that this flock belongs to any distinct family, or sub-variety of the Merinoes, but suppose they were originally selected without discrimination, from the prime flocks of Spain.

As in France, Sweden, and every other country to which it has been exported, the Merino has decidedly improved in the U. States. Larger sheep—heavier fleeces—more symmetrical carcases have been obtained, than could be found in any of the early importations. Our colder climate—to say nothing of the skill of American breeders—has increased the fineness of the Paulars; our pastures, infinitely more nutricious than the scorched plains or uncultivated mountains of Spain, have enlarged the carcass, and given weight to the fleece; our breeders have robbed them of a little of their original hideousness! Improvement in the latter particular, might have been carried still farther, had it been *desired!* But a Paular without his "*ruffle*," would be like a *white* Berkshire—nobody would give credence to his pedigree!

It is often asserted that there are no pure Paulars now in the U. States. Individually, I consider this a matter of the least possible importance. There are sheep which no one will deny are pure Merinoes, that are mainly descended from the Paular stock, and *which are in every point of view superior to the original Paulars.* If they are not Paulars, they are *an improvement* on Paulars. Consul Jarvis, in his private flock, mixed his different varieties as the French did at Rambouillet. In his judgment, it resulted in the improvement of *all.* But Mr. Jarvis kept but a small portion of the Paulars he imported. They were sold in every part of the Union.

For the satisfaction of those who esteem the Paular pedigree, as the lawyers say, a *sine qua non*, I perhaps should state that *there are pure Paulars in the U. States*, in the hands of various individuals? How is this known? How are the pedigrees of our *cattle* known? Have we any thing to show for it, but the assertions of honorable and veracious men? How is the pedigree of a Durham bull or cow placed in the English Herd Book? Is it not done on the assertion of the breeder? Now there are honorable and veracious men who trace back their Paular sheep directly to Mr. Jarvis' and other importations—who had bred them, or knew of their being bred, directly from such imported sheep—and who assert that they never have been crossed with any other variety Are their assertions entitled to less credit than the cattle breeder's assertions?

The portrait at the head of this article, is that of the Paular buck "*Fortune*," owned by S. W. Jewett of of Weybridge, Vt. He was bred by that gentleman, sold by him a lamb, and subsequently re-purchased at $200. Mr. Jewett considered him superior to his celebrated "Don Pedro," so often alluded to in our agricultural periodicals. The fleeces of these animals, well washed on the back, has been as follows:

	Don Pedro.	*Fortune.*
1st year,.....	6 lbs. 7 oz.	7 lbs. 9 oz.
2d year,.....	9 lbs. 4 oz.	12 lbs.
3d year,.....	12 lbs.	13 lbs. 4 oz.
4th year,.....	14 lbs.	
5th year,.....	13 lbs.	

"Fortune's" live weight is about 140 lbs.

Mr. Jewett states that the full blood *yearlings* of Fortune's get, taking bucks, wethers and ewes together, will average between five and six pounds of washed wool.

The accuracy of the above portrait, I have had no opportunity of testing by personal inspection. Mr. Jewett thinks it an uncommonly faithful one. If so, Fortune is truly a remarkable sheep—better in the fore rib and bosom, and with less dew-lap, than any thorough bred Merino I have ever seen. I suppose in fact, this buck *is* every way a remarkable one. I am satisfied that Mr. Jewett has no design to exaggerate in relation to his fleeces, or in other particulars in relation to his sheep. In proof of this, I offer the following facts:—This spring, I ordered a small lot of sheep of him. He was unable to forward but two—a buck and an ewe. They were about 13 months old at the time of their arrival. I had them *well* washed. To make "assurance doubly sure," I sent a pair of small steelyards to the "sealer of weights and measures," and invited in some neighboring breeders. Both fleeces were accurately weighed by the newly tried steelyards, in the presence of all, and the buck's fleece weighed 8 lbs., the ewe's 5 lbs. 12 oz. On the first day of Dec. inst., I had the buck weighed. Including two light straps, weighing say 1 pound, he weighed 147 lbs. The ewe, I think proportionably heavy. So far, then, my buck beats both his sire and Don Pedro. I never have seen finer formed *pure* bred Merinoes than either of them, nor *finer wooled ones*. The ewe I think decidedly the best I have ever seen. I have a small flock of Merino ewes, which, including yearlings and all, averaged above 5 lbs. of wool per head. A portion of them took the first prize in two counties this fall, but none of them equal the the sheep purchased of Mr. Jewett. Both of the latter, however, and in fact all of them, are terribly *wrinkled*—have huge pendulous dew-laps, and an "apron" (a large flap of loose skin depending from the brisket,) which falls nearly to the ground as they graze.

So, Mr. Editor, I have fulfilled your request to tell you what I know of Paulars in general; "Fortune's" character, pretensions, and progeny, in particular.

Yours truly, HENRY S. RANDALL.

Cortland Village, Dec. 1843.

EXPERIMENT WITH GREEN MANURES.

MESSRS. EDITORS:—The query in your November number, (p. 172,) relative to "green manures," opens a subject which is important to that large section of country where corn usually sells from ten to fifteen cts., wheat from thirty to sixty cents per bushel, and other crops in proportion, and where of course it behooves farmers to manure their lands not only *well* but *cheaply*. Having recently tried some successful experiments with green manures, on exhausted land, I propose to give the results to your readers.

The farm is "bottom" land, 140 acres, slightly rolling; soil originally 4 to 6 inches rich sandy loam, then 2 to 4 feet yellow clay, mixed with sand and loam, the whole resting on a bed of limestone gravel 30 or 40 feet deep. When I commenced my experiments in 1840, about half the farm was moderately fertile, having been cleared from the forest about eight years; the other half, old fields which had been cleared forty years, had been *skinned* by successive crops of corn, and appeared more congenial to mullein than any thing else. My object was to restore these old fields at the least expense practicable. In September, 1840, one of these (30 acres) was sown in wheat, red bearded, 5 pecks to the acre, and in March, 1841, 3 bushels of clover seed sown on the 30 acres of wheat. The crop of 1841 was just 8 bushels of wheat to the acre, and was a fair measure of the average capabilities of the land in its then condition. The spring of 1842 was an early one, and on the 9th of May, the 30 acres of clover being in full blossom, and divided into two lots of 14 and 16 acres, 118 hogs were turned to pasture on each lot alternately, and kept fat without any other food than the clover tops, until the 1st of September. From the 15th to the 24th of September, 1842, fourteen acres of the clover sward was broken up, and with 20 acres of the adjoining *new land*, sown in wheat (red bearded, 5 pecks to the acre.) The crop of 4843, was 18 1-4 bushels of wheat to the acre on the 14 acres of old field, and 14 1-2 bushels per acre on the 20 acres of new land. The average wheat crop of 1843, in this neighborhood, did not equal that of 1841. There is now, without any expense of seeding, a fine crop of young clover on the 14 acres of old field, the remaining 16 acres being under a different course of experiment.

The advantages of this mode of restoring exhausted soils, of the kind above described, where labor is dear and the produce of land cheap, are several:

1st. The expense of preparing and hauling artificial manures is avoided.

2d. The pasturage of the hogs (3 to the acre, 4 mo's,) on clover, pays for the use of the land and expense of sowing and seed. And as hogs eat little else than the clover tops, they do not check its growth, and the dung they leave is as valuable for manure as the clover they eat.

3d. The clover, if not pastured too close, will always scatter seed enough to cover the ground the next year with a new crop.

I ought to have stated that 3 acres of the 14, had 52 ox cart loads of well rotted horse manure, and 3 other acres had 100 bushels of fresh slaked lime scattered over the clover sward before it was plowed in. The land was well plowed once, and harrowed twice. The stable manure produced a slight effect for the better on the wheat crop; the lime none perceptible. I will watch the effect of each on the coming clover crop. I attribute, therefore, nearly all the increase of the wheat crop to the effects of the green clover and fresh hog manure. If I am right in this, the account for 1843 will stand thus:

COST OF MANURES.		GAIN.	
50 cart loads horse litter on 3 acres, at 8 c. per load,	$4·00	8 bushels wheat at 60 c.	$4·80
100 bu. lime on 3 a. at 7 c.	7·00		
14 acres, clover sod and hog manure, paid for by pasture,		140 bu's of wheat, increased crop, at 60 c.,.....	$84·00

I do not give this single experiment as a safe basis for any system whatever; but as many of your readers, like myself, occupy lands where any mode of manuring costing more than four or five dollars per acre would occasion a loss, even if the average crop were doubled, an efficient and less expensive mode of manuring than is practiced where the produce of the soil brings a higher price, is much needed, and I earnestly desire to see the attention of the many intelligent correspondents of your valuable and widely circulated paper turned to this subject.

Very respectfully,

JAS. T. WORTHINGTON.

Chilicothe, Ohio, Nov. 20, 1843.

CHAUTAUQUE SILK.—From a report of the proceedings of the Board of Supervisors on the 14th ult., furnished by the Mayville Sentinel, we see there was awarded by the board, the sum of $176,79 as a bounty on cocoons and reeled silk, the products of Chautauque co. N. Y., for 1843, to be paid from the treasury of the State, agreeably to a legislative enactment offering 15 cents per lb. on cocoons, and 50 cents per lb. on reeled silk. The amount of cocoons being 1002 lbs.; of reeled silk 59 lbs.

Give hens chalk or egg shells with their food.

NEGLIGENCE AND ERRORS IN AGRICULTURE.

MESSRS. GAYLORD & TUCKER:—I propose as a very proper subject for a paper for the first number of your journal, to point out some of the negligence and errors that farmers allow themselves to indulge in or commit. I have often thought, and still think, that one of the most useful periodicals that could be published, would be one for the correction of errors, called, if you please, "Erratur." Scarcely less valuable, may I not say even more valuable, would be the "Detector of Negligence;" but if both were combined, who can conceive of the value of such a work to the farmer? But enough of introductory; let us proceed to the discussion of the subject.

I believe farmers lose as much by negligence as by bad cultivation. Let me illustrate: Whenever I hear a man complain that his grounds are overrun with thistles, with ox-eye daisy, wild carrot, chess, nut grass, &c., &c., I at once say to them, there was a time, and that not long ago, when you might have prevented this evil with five minutes labor. When you first saw that villainous plant on your land, there were but one or two, or half a dozen, and you could have destroyed them with a dock extractor or hoe in a few minutes, but you neglected the opportunity. The next year their seeds were scattered over every field, and you might even then, by a few hours' exertion, have exterminated the whole family; but now their name is legion, and your small force is inadequate to their extirpation, except at the expense of at least a season's crop. This is not all. Your more careful neighbors, on whose grounds a vicious weed was never seen to grow before, are out with their weed-hooks, &c., endeavoring to destroy a noxious weed that they find springing up in all parts of their fields *from the seeds blown from your fields*, and wondering whence they come. Would you do justice to yourself and to all your neighbors? In all your walks over your fields carry in your hand a weed-hook, with such fixtures on the end as will enable you to pull up a narrow leaf dock by the roots, and never allow one of these or any other noxious weed to stand one minute after your first discovery of it. Do not, as many negligent farmers do when they see a weed of this kind, pass on, saying to yourself, "I will send a hand to destroy this thing, on my return to the house." That is not the way to destroy it. You may, and most likely will forget it, on your return to the house; the hand may not be able to find it: he may not destroy it effectually, if he does find it; he may not look for it, (because the land is not his, the crop to come is not his, he is sure of his month's pay at all events, he has no interest in its destruction.) In all your walks over your farm, let the staff in your hand be a well constructed weed-hook; you can walk as well and protect yourself as well with such a staff or cane as with any other. Now this is the way to rid yourself of all noxious weeds, or rather to prevent their formidable appearance. Begin at the beginning, with these pests, or with any thing else. Put a new rail in that panel, in place of that rotten one yonder; do it now, don't wait till the broken rail invites some stray animal to leap into your cornfield, and in doing so breaks half a dozen other rails. Take a spade and drain off that pool of standing water in your wheat field yonder, and as you go along cut off that summer sprout or young shoot that is just starting from the limb of that apple tree, that favorite tree of yours, and mind, hereafter don't let such things grow on any of your trees. Take a small spade and dig up all, every one, of those butter cups, (*Ranunculus bulbosa,*) in your cow and sheep pastures, and as soon as you see a single plant of that poisonous plant hereafter, destroy it instantly. Don't you know it is one of the most deadly poisons to cattle and sheep that can be found. It does not kill, it is true, at once; but it is a slow poison, and ultimately kills any ordinary animal that eats it; besides, it poisons the milk of cows, and is supposed to be the cause of the "milk sickness" of the west.

Errors in farming or agriculture, are as numerous as instances of negligence, and even as deleterious. That was a capital error of yours, sir, in supposing that because you had a thin soil with a clay substratum, you must not plow deep. Why, my dear sir, if ten years ago you had begun to plow deep, you would at this time have had a deep soil, instead of this thin skin that is made still thinner every time you *scratch* it. Plow deeply, as deep as you can, every time you plow, and in a few years you will have no reason to complain of short crops from drouth, or of winter killing from hard winters, nor of short crops from any thing else. Don't try too much of it! Try all new things in a small way. If you had tried but one acre of that new spring wheat, and kept trying one acre till you found it to be, or not to be, what it was cracked up to be; or if you had tried but one bushel of those new potatoes, for two or three years in succession; or if you had tried a quarter of an acre of that new Spanish clover, till you had found out what it was worth—if you had done all these, you would not now be complaining of loss by experiments. Go upon, in all cases, the wise proverb of Solomon, or St. Paul, I forget which, "Try all things, and hold fast that which is good." But Solomon or St. Paul, whichever it may have been, meant that you should "try all things" in a small way, until you found them "good."

Errors in judgment are so numerous, so universal, that it is difficult to point out examples; there are so many of equal importance, that we can hardly choose which to take; but that farmer yonder who throws his stable manure out of the window of his stable, on the side of the hill, and allows it to remain there from month to month, to be washed by every rain and bleached by every day of sunshine, commits not a greater error than him who purchases manure at a distance, employs teams and hands to haul it to the farm, all at a heavy expense, and at the same time overlooks, or omits to avail himself of, the numerous sources of manure that are staring him in the face every hour of his life on his own premises. "My father hilled his corn, and made good crops," says one; forgetting, as it would seem, that his father's land was new and could "stand any thing." "I have the tallest corn, and will have the greatest crop of any in these parts," says a Saratoga county farmer who had obtained some seed of the tall southern corn, in a tour last year to the south; forgetting, or not having recollected, that corn that may make a good crop in the south, will not necessarily do so in the north, until the first of October nipped all his prospects in the milk. He had not duly considered that plants have their climates as all things have their seasons.

But I must bring my discourse to a close, and will do so by a summary illustrative corollary: Two white millers, or moths, entered the gardens of two citizens, in the spring: one, of course, in each. The owner of each garden was present, and each saw the little creatures. One of the citizens instantly caught and killed the insect; the other allowed it to pass on, paying no attention to it. In mid-summer, the garden of the first citizen was free from caterpillers; that of the other was completely denuded of foliage, with bugs and offensive insects on every shrub and plant. "Why," says the latter to the former, "how happens it that you have no caterpillars, while my garden is devoured by them?" "I killed the first miller," says the former, "you let it live, lay its 500 eggs, which in two weeks turned out 500 caterpillars, and then in their turn, in a few weeks, each 500 more, and so on till you have your millions of insects, and I have none." G. B. S.

MESSRS. EDITORS—Having seen an article in the Oct. No. of the Cultivator, respecting Nut Grass, I will give a slight description of the kind to which I presume your correspondent must refer. The grass to which I refer, makes its appearance in this climate I think, about the middle of June; the blades shoot forth in bunches of perhaps five or six, increasing in numbers however, as it advances in age, but never rising to form a stalk, always lopping off at the top of the ground; the leaf a beautiful glossy green, and at the root, (which runs to some depth,) may be found a nut resembling somewhat in size and shape the beech nut. I never knew it to grow in very thin land. To destroy it, is no easy matter, I think. A SUBSCRIBER.

THE COTTON PLANT.

Drawn from nature, by Mrs. S. H. Bourne, *for 'The Cultivator.'*

The above engraving represents the thirty-fifth and thirty-sixth limbs of a stalk of Dr. Cloud's improved Cotton. The plant from which the drawing was made, was topped 10th of July, and was 6 feet and 4 inches high. Dr. C. informs us that great care was taken to make the drawing perfect, and that he has never seen a more correct likeness. We tender our thanks to Mrs. Bourne and Dr. C., for affording us this opportunity to present our readers with a correct drawing of even a part of the Cotton plant; and we hope they will hereafter furnish us with a correct view of the whole plant, reduced to a size suitable for our paper.

THE IMPROVED CULTURE OF COTTON.—No. III.

Messrs. Gaylord & Tucker—Entertaining the profoundest respect and the kindest feelings towards the opinions and practices of those planters who are greatly my seniors in age and in agricultural experience, I propose now, in this third paper, to engage in discussing "the principles and philosophy of this improvement in the culture of Cotton." I will first remark, directly, gentlemen, what I have intimated throughout this correspondence—that in conducting these experiments, and in advocating the claims of this improvement, (the leading and meritorious features of which belong to your invaluable Cultivator,) I have had no ambition to gratify, which is not common to the lover of science and agricultural improvement; nor have I any interests to subserve thereby, which may not be the privilege of every planter in the country, however humble his pretensions or ability. Yet, admonished as I have been, by the precipitate and unmeasured tirade of vituperation and spleen, which my first paper excited among the *corps editorial* of the country, and others of the "skinning gentry," Ihavenot ventured upon this most delicate position, though long promised, without again revising carefully and practically, the principles and ability of this system.

In my first paper it will be recollected, I stated the grand object which this system of improved culture proposes to accomplish for the planting interest of the country, and I also gave there a fair and impartial, and a most satisfactory expose of that system, (if such it may be styled,) by which the cotton plant is at present grown. In my second number, I gave in detail, in an equally plain and simple manner, the *modus operandi* by which my experiments were conducted; this was no second hand report, or say-so of another person, but in part the work of my own hands, and the entire management under my immediate supervision. In this paper, I propose giving *the why and the wherefore*, for all this—at least, in my humble opinion; and to point out the *inconsistent*, the *reckless* and *grassy* policy of the present practices of the country, as compared with the *systematic*, *economical* and *philosophic* policy of this improvement.

It is my purpose, gentlemen, first to give you a correct sketch of the botanic characteristics of the cotton plant, as we meet with it under the circumstance of its most favorable culture. I do not offer this in the spirit of ostentation, to appear learned from the technicals used, (the necessary peculiarity of every science.) My object is simply to call attention to a subject—too much neglected by planters—about which the books are carelessly in error; and a proper knowledge of which, in my opinion, tends greatly to indicate the best or right mode of culture.

The botanic name then, of the plant we cultivate, is *Gossypium herbaceum;* we find it in the fifteenth class of the Linnean system, *(Monadelphia,)* and in the thirteenth order, *(Polyandria.)* The first leaves that make their appearance after the cotyledons, three to six, are *ovate*, and indicate certainly the sucker or branch limbs, that will first put out from the stalk. After these, we have the cotton leaf proper, *three to five lobed*, and mercronate, with one gland upon the *mid-rib* beneath; these leaves invariably indicate the arm limb, growing out horizontally, and articulated, forming at each joint one or more balls; coming out with the arm limb, we have almost invariably a branch limb, with several balls—or a stem with one to three balls. The stalk is *ligno*-herbaceous and *pubescent*—and in our climate an annual, attaining the height of *six to ten feet*. The period of flowering is from 10th *June to frost;* the calix double, the outer one

three-cleft; capsule, 3 to 5 *celled*, with 7 to 9 *seeds* in a cell, involved in the staple. Early in the morning the *milk white** bloom may be seen, in the form of a conic scroll, emerging from the fringe work of its outer calix; and with the rising sun it unfolds the segments of its petal, and by one hour by sun we behold the full blown bell-formed flower. Thus, blooming white, it remains till 12 o'clock, when within 15 minutes thereafter, we may observe by the naked eye, a faint ray of pink skirting the thin margins of the segments, which pink color may be seen by one to two o'clock, to have diffused itself throughout the bloom. It thus continues changing from white to red, till sun up the next morning, when it will be found a beautiful brilliant pink; now with the rising sun it gradually wilts, and by 12 o'clock it drops off, leaving a distinctly formed ball, securely sheltered by its calix.

This description, which is strictly correct, differs in several of its particulars from Eaton's, and from the miserably erroneous engraving and description of the same, to be found at page 307 of "Sears' Wonders of the World;" and yet strange to say, this same engraving, with probably but a single correct feature, is copied into the "American Agriculturist," in illustration of an article by Dr. Philips. I might point out a half dozen errors in that engraving; it will answer my present purpose however, that I detain you with but two or three such notices. You will first observe the bloom and the description given, and you will agree with me at once, that Mr. Sears has been *bugged* by an okra flower; the cotton bloom in its healthy state, is never so much flared, nor has it any *red spots* in the bottom. Observe again to the left, that young ball with its *drooping calix*; that is altogether unnatural, and is never seen except where the worm is or has been. You will observe the same error in the opening ball; every little boy, who has picked but fifty pounds of cotton, will tell you if that were the fact, there would be no trashy cotton. I am sure Dr. Philips has detected these blunders, with others equally evident. This I suppose will be considered a small matter, about which nobody is at fault; because even intelligent planters have never thought it worth while to give a correct description of the cotton plant. This same carelessness is observed, when we cast our eyes upon the large map of Alabama; we there see a most imposing engraving of a large *fancy plant*, with its one hundred and one errors, if called a cotton plant. Observe again, the beautiful and chaste vignette of our own excellent and cherished *Southern Cultivator;* we see there an engraving designed for the cotton plant, yet I am sure if the *pendent* open balls were painted *red*, you would sooner take it for a pomegrante bush!

To the planter who is satisfied merely to plod along the inanimate imitator of some skinning neighbor, this sketch will appear a tedious and uninteresting detail. I am convinced, however, of its importance,—and there is a spirit of improvement abroad in the land, which requires just such detail of fact; because it is not possible, at least it is extremely improbable, that we succeed in improving and perfecting the culture of any article of vegetation until we make ourselves *well* acquainted with its natural characteristics. Hence I remark, that when we look upon the stately pyramidal appearance of an improved cotton stalk, grown under favorable circumstances, we observe at once—indeed, we are forcibly struck with the distance proper in its arrangement upon the soil, which is so clearly indicated. Again, we observe an uncommonly large amount of foliage for an annual, besides some 3 to 4 lbs. of seed cotton upon the stalk—literally crowded from its base, upon an area of some 15 to 20 square feet, to its apex, at the height of 6 feet. Now in view of these clearly established facts, the invariable effect of certain well defined causes, I shall not suppose any planter so dull as not to know what course to pursue, if he find that it require a given amount of grain to grow a pig to a given size in one year, that to produce another such pig the next season, the necessary amount of food or grain must be first supplied. Without the food, the pig will be found at the end of the year a *landpike;* and so the cotton, without the geine or manure, will be found, as is too common, the *little Federick!* Were I to assume an affirmative position in this analogy, every planter would reply instanter, and most indignantly too,—Sir, you are behind the times; our own sage Franklin, more than a half century ago, in his friendly advice to Poor Richard, has assured us "that by constantly taking out of the meal tub and never putting in, we shall soon find the bottom." Philosophically true this—good homespun and sound doctrine; yet plain and simple as be this doctrine, the cotton planter knows it only in song—his acquaintance with this golden truth is theoretic entirely. His exhausted fields and dwarfish puny cotton, tell tales more positively contradictory and gloomy, than I have room or inclination here to enumerate.

The governing principle then, in this improvement, is to give constant and diligent attention to keep the *meal tub well supplied.* In the first place, produce and haul out upon your land a sufficiency of good manure, fully to supply the requirements of the plant all the season. In another place, I have shown that it is a perfectly easy matter to produce this manure, to which I will further add here, that the decaying materials abound spontaneously, scattered up and down, filling each nook and corner on every plantation, during all the season, a wasting nuisance that might be easily collected and converted into a profitable revenue, if but one-third the time and attention otherwise sedulously consumed in the butchery of the soil, in a petit war against grass and weeds, the inevitable produce of such latitudinarian systems of culture, was devoted to that most valuable employment. In this important department of agriculture, science is actively engaged in rendering the planter the most essential service.

Having derived these important indications from the figure and natural characteristics of a perfectly matured cotton plant, the judgment of the planter is brought into active requisition in properly adjusting its relative position in width of row and its situation on the drill, in order that we secure the greatest possible advantage in its subsequent culture. My own experience inclines me to the opinion that when land is improved only to the extent of 150 to 200 bushels of manure per acre, less than fifteen square superficial feet to each stalk will be too close. Nor will improvement carried to five times that extent, require greater distance than twenty square feet to each stalk. Since, then, it is found necessary that each stalk occupy this distance, it would appear that the simplest course would be to lay off the rows equi-distant each way. The question is frequently asked, "Why not lay off the land 4 by 4 feet, or 5 by 4 feet?" There is a very serious objection to this simple plan, which every planter must perceive on a moment's reflection. In either case, the cotton will be found so entirely interlocked by the 20th June to the 1st of July, as to forbid further work; yet we find, under the most favorable circumstances of seasons and culture, that it will take the stalk until the 10th July to attain the height of six feet, short of which we should not top it, nor earlier in the season; and it is very desirable, and highly necessary even, that the cotton be swept once after topping it, which we find impracticable unless the rows be laid off wide one way, with a view to that desirable operation. Upon land then, that is but moderately improved, I prefer the rows north and south 5 feet, by 3 feet east and west; and upon land in a higher state of improvement, 6 feet by 40 inches will be found the best distance. Though we shall find the stalk a little crowded the narrow way by this course, yet we secure the more important advantage, in being able to scrape and pulverize the surface later in the season. I suppose there to be other advantages likewise, in this plan of laying the rows at right angles, north and south, and east and west, and bedding the land north and south, to which, however, I must refer at another time.

The next object to which I shall direct your attention, is the mode of culture which I conceive to be necessary in the after management of the cotton plant; the correctness, and even superiority of which, I hope to establish as clearly here, as in practice it has so triumphantly succeeded. The constant and invariable success which

* The Sea Island Cotton bloom is yellow.

attends this improvement in my hands, is the result of a *strict and scrupulous adherence to system in its management*. Every science and every profession among men, which is either useful or valuable, acquires both respect and importance on account of system. System is essential to certain success in every undertaking; and especially is it necessary in this first of all professions. The principal object we have had in view, in all this manuring, thorough plowing, laying off and bedding the land previous to planting the seed, has not been to plant alone; men plant abstractly, as handsomely and with the same facility, with less labor; it has been done to encourage and facilitate the early and extensive growth of the fibrous and soil roots, by which means the plant readily, and equally early, augments the extent of surface (in number and length of its limbs,) for fruiting, and the consequent number of its organs of atmospheric nutrition. The immense advantages which the plant derives from an early accomplishment of an object so desirable, is at once obvious when we recollect "that the soil and atmosphere offer the same kind of nourishment to the roots and leaves of the plant." There can be no reasonable doubt, though we possess not the means of positive measurement, but that the plant multiplies its organs of atmospheric nutrition in precisely the same ratio that an improved and judicious system of culture facilitates the growth and prosperity of its roots. There is also another interesting consideration connected with this subject, which I esteem worthy of notice in this place; which is, that though the soil and atmosphere offer the same kind of nourishment to the roots and leaves of the plant, yet the character of its assimilation and consequent appropriation widely differ. My own opinion is, that the roots assimilate food for the production of the stems and leaves mainly, and that the leaves assimilate the same for the production and maturity of the blooms and fruit. I do not claim originality for this opinion; I think I have seen it hinted at in some work on vegetable physiology, though I cannot now say where.* I have been governed by this impression, at least in conducting my experiments, which have not as yet been of a sufficiently varied character to enable me to determine and assert the fact positively. My attention was first called to this interesting subject while investigating the cause and effect of rust upon the cotton plant, which every planter has seen, some of the features of which would seem to strengthen this position. How desirable is it, then, if all this be fact, that we adopt such system in our after management as will not only preserve this natural chain of action unimpaired, but encourage its progressive prosperity? It is not enough, however, that we thus dismiss this part of the subject; its importance requires of us a much more simple and extended view.

We will commence then, at that age of the plant at which it is first worked, by examining the roots of two stalks: we pull up one in the ordinary way of thinning cotton, that is, we take hold of the stem and draw it up, and we have a single long root (in most instances) tapering to a point; we have simply the tap-root. We will take up the other with a spade or hoe, the stalk standing in the center of some six to eight inches square of soil; we then gently sift or shake the soil from the roots, and we have a fair specimen of the cotton root: we have what is properly meant by tap-root, a plant with a main root long and tap-like or tapering, dipping deep into the soil; beside this tap root, however, we find an almost innumerable quantity of fibrous or surface roots diverging in every direction, as long in many instances as the tap root itself, and coming out generally from one-half to one inch below the surface. This is a fact worthy of notice, with which every planter may, if not already aware of it, acquaint himself early the next season. This may appear to some persons a very simple and a very trivial investigation, yet I find in it a most satisfactory solution of the immense injury which the cotton plant sustains from the multifarious policy of the country. I remark then, as the plant comes forward, so the tap-root (where it exists, though an unnecessary appendage in our climate,) sinks deep into the soil, while the fibrous or surface roots multiply and shoot in every direction; hence, I say, "as early as possibly convenient" after the plant is up, "plow out the middles *well*, the wide way, having first run around the plant with a scooter plow." The main object in this operation, is once more, before the surface roots come out so far as to sustain injury, to thoroughly ... the soil and again commingle it with the manure. The plant being now thinned down to two or three stalks in a place, and a small quantity of soil molded about the hill, is left in this most favorable and growing situation. In the course of some fifteen to twenty days, when we return to work it again, it will be found to have come forward rapidly, standing from 12 to 15 inches in height and finely limbed. If we now take the trouble to examine a hill or stalk, we shall find an amount of earth included within the circuit of these fibrous and soil roots, as they penetrate all parts of the loamy mold in pursuit of the luscious geine, (like a flock of sheep fresh upon a rich pasture,) that will weigh more than a hand can tote. With these facts before us, let us turn our attention for a moment to the practices of the country at this stage of operations. One planter will now commence work, and the plant standing from 10 to 12 inches high, "with a bull-tongue or scooter plow," and he will dagger into the soil, as close to the plant as he can possibly get, some 3 to 4 inches deep —he says, "to loose up the earth, that the tap-root may go down." Another planter will again, the second and third time, run the bar of a turn plow to the cotton—he says, "to kill the grass;" thus it stands bedded in the middles, and "steaming" a few days, when these hot beds are plowed out; though I have even seen it barred the third time before plowing out the middles! All this may answer the *purpose fully*, and even look very well to the planter that operates to kill grass; but we have a latent cause operating destructively in this practice, and though the *certain effect* is not always willingly recognized in the turning yellow aud falling leaves of the plant, it is not however the less obvious. The planters operating thus, will tell you, in the first instance, "this cotton has received a fine working; there's not a sprig of grass or weeds to be seen; but it does not grow off as it should; this *little dry spell* has checked its growth." But partial showers may have fallen upon the other man's cotton; he says, "See my cotton; how clean and nice its worked, though it is too wet, and does not grow; *rainy weather* does not suit cotton." This is the logic (I will not say universal,) of the devotees of this *grass killing* policy, in accounting for its disastrous consequences, and will, I am sure, be very readily recognized as such by every impartial man. Now, the truth is, I will illustrate the whole difficulty here, by a very simple, though rather uncouth simile; it is however not the less pertinent to my present purpose, because men are not to be benefitted, nor will they improve in the practice of any science or profession, unless they exercise the faculties of thinking and reasoning, though such exercise be bought at the expense of decent ridicule. We will suppose the planter operating in this way, having received a pair of fine Berkshire pigs, says to his trusty man, Sambo, "take this bushel of corn to the barn-yard and feed those pigs well; I want them to grow *large* and *fat*." Well, Sambo, always anxious to carry out the views of his master, and having carefully watched his operations in the treatment of his cotton, to make *it grow large*, takes up the basket, and then providing himself with a hammer or hatchet, he proceeds to the yard; he first takes hold upon the gentle, unsuspecting grunters, one by one, and with his instrument he knocks or breaks out their teeth, and then throwing down the corn, he returns to the house with spirits buoyant in the consciousness of having so consistently discharged his duty! "Well, Sambo, you have given those pigs plenty of corn, ha?" "Yes, sir, they are well fed." In a few days he takes a friend to look at the fine Berkshires. Yes, Sambo has given them corn plentifully; there it

* Since writing the above, I see, in a report of the sitting of the Academy of Sciences for August the 14th, a paper was received from M. Dutrochet, on the production and ripening of fruits. This gentleman states "that the removal of the leaves of fruit trees, in order to expose the fruit to the direct influence of the air and light, is exceedingly destructive" I suppose he means destructive to the fruit. If so, his experiments would seem to corroborate this opinion.

lies by them! But this is too plain a case; the pigs have the *teeth-ache, and they are broken off, too!* neither the wet nor the dry weather has caused the mischief here! And yet the pigs, like the cotton, have only *their teeth broken off!!* Poor Sambo! we leave him to explain to the world the rationale of this *root and teeth breaking policy.*

N. B. CLOUD, M. D.

Macon Co., Ala., Nov. 1, 1843.

(To be continued.)

LETTER OF MR. ELLSWORTH—BOMMER'S PATENT.

WE invite the attention of the readers of the Cultivator to the annexed letter of the Hon. Mr. ELLSWORTH, chief of the Patent office at Washington, on the subject of patents, and the claims of Mr. Bommer in particular. There is no subject in the whole range of agriculture, of more interest to the farmer, than that of manures; and any improvement in its manufacture, by which its quantity and quality may be increased, will be received by them with favor. That manures made in the way recommended by Mr. Bommer, or according to the patent claimed by him, are of superior quality, no one acquainted with that method can doubt. But if, as Mr. Ellsworth seems inclined to suppose, it is only the French method, with some unimportant additions, so far as the making of the manure, or its quality is concerned, that method should be generally known, that all may avail themselves of its advantages, and we thank Mr. Ellsworth for enabling us to give the specifications a place in the Cultivator. We have given the large pamphlet, just published by Mr. BOMMER, and containing an ample account of his method and its advantages, a copy of which he has kindly placed in our hands, an attentive perusal, and can safely say there are few if any publications on the subject there discussed, whatever may be their pretensions, which combine such a mass of practical instruction on the preparation and use of manures. Of the legality of the patent under which he is acting, we do not express an opinion; but we know that the method used by him, and described in the pamphlet, a copy of which is furnished every purchaser of a right, will make manure in any quantity, and of the best quality for almost every kind of cultivated crop. Of the French method as described in the specifications, we are not competent to judge, having never witnessed its effects; we should, however, prefer purchasing Mr. B.'s book, in which the whole process is detailed.

LETTER FROM MR. ELLSWORTH.

Washington City, Patent Office, Nov. 3, 1843.

MESSRS. GAYLORD & TUCKER—I noticed in your last number of the Cultivator, just at hand, a particular notice of Bommer's process,—also his advertisement announcing "Bommer's manure method, secured by letters patent," and referring to "documents recorded in the patent office," to prove his rights. This advertisement has greatly increased the burden of answering requests for copies of "Bommer's Patent." Whilst I have studiously avoided expressing an opinion on cases pending or decided, yet as special reference is now made to the bureau to sustain the advertisement, and fearing that the public may be misled by my silence, I hasten to state the facts as they appear of record. Mr. Bommer, on the 12th of May, 1843, presented an application for a patent for making manure. This application was duly examined, and rejected for want of novelty. No appeal was taken. The application was withdrawn, and $20, the usual sum allowed on withdrawals, paid to Mr. Bommer on the 6th of July last. No other application has been made by Mr. Bommer for a patent for similar purposes * It may not be improper to state that Messrs. Baer & Gouliart, in June, 1843, obtained a patent for an alleged improvement on the method of making manure, patented in France by Juaffret, which said method, however, has not been patented in the United States, and is therefore free to the public. How far the public are restricted in the use of foreign inventions, may be ascertained by referring to the claim of the American patent, which, you will perceive, is restricted to the preparation of the *heap* and the mode of *applying* the lye to the same; the *ingredients*—in other words, the *lye itself*, not being claimed. That no injustice may be done to the parties concerned, I send you a copy of the American patent, and only add that Mr. Bommer has become an assignee for several states, under this last mentioned patent.

Yours, &c. H. L. ELLSWORTH.

* Mr. Bommer informs us that on finding his own claim rejected, he was induced to make an arrangement with Baer & Gouliart, by whom his claim was again presented, and the patent secured in their names —EDS

COPY OF BAER AND GOUILART'S PATENT.

To all whom it may concern: Be it known, that we Charles Baer and John Gouliart, of the city of Baltimore, in the state of Maryland, have invented certain new and useful improvements in the manner of making manure, which has been for many years practiced in France, and has been there secured by Letters Patent under the name of "La Methode Jauffret," and we do hereby declare that the following is a full and exact description thereof.

In the method of Mr. Jauffret, a pit or reservoir is prepared of sufficient size to contain the quantity of prepared lye which may be required by the nature of the establishment. This reservoir or vat is intended to be a receptacle of water saturated with decomposed animal and vegetable matters, and is further to receive the ingredients hereinafter named; such water is to be found on nearly every farm, and it may be augmented by the drainings of stables, by dish water, suds, and other substances of a like nature.

Mr. Jauffret, however, finally prepares his lye, by which the fermentation of the articles to be converted into manure is to be promoted, in the following manner, under various modifications.

For the conversion of from one to two thousand pounds of vegetable matter into manure, he takes about

200	lbs.	of night soil,
200	"	calcined plaster in powder,
50	"	wood soot,
20	"	wood ashes unleached,
60	"	quick lime,
1	"	common salt,
1	"	rough saltpetre,
150	"	lye or ferment drainings from a Jauffret manure heap.

These ingredients are in many cases to be replaced by others; this lye to be prepared 10 or 15 days before use. The quantity of materials abovenamed, for the conversion of from 1 to 2,000 lbs. of straw or other dry vegetable stalks, will answer for about double that quantity of green vegetable matter.

In using this lye, the plan of Mr. Jauffret is to steep in it the vegetable fibres, which are to be acted upon by throwing them into the vat or reservoir containing it, and removing it thence at great labor so as to form a high heap in the vicinity of the vat, into which the drainings are allowed to run.

We have thus given a brief outline of the method of Mr. Jauffret, the same appearing necessary to the understanding of our improvements, which consist in our omitting altogether the excessive labor of steeping the materials to be acted upon in the lye, and elevating them from thence to the heap; and also in the preparation of a lye, which is equally effective with that of Jauffret, at much less cost, and which can be used immediately on its being made, thereby saving the delay of 10 or 15 days which "La methode Jauffret" requires.

We prepare a reservoir to contain the lye as usual, and in the immediate vicinity of this, we make our stacks or heaps of vegetable matter, which is to be converted into manure.

We give to the ground, where the heap or pile is to be made, an inclination towards the vat; if the ground is a firm clay, it may be merely sloped, and have shallow trenches dug on its surface to conduct the drainings back into the vat; or it may have a flooring of timber, brick or stone, as may be preferred, which may be so trenched as to conduct the whole towards a central drain. When our platform or flooring is of clay, we cover the trenches and whole surface of it with brushwood or rails, so as to

form a temporary grating that will support the weight of the heap, and thus insure a drainage, and the admission of air to the heap from below.

The materials to be converted into manure, we pile up on this prepared platform immediately as it is delivered by the carts, and this we sometimes continue to do until the heap has attained the whole height to be given to it, when by the use of a pump, buckets, or other suitable means, we raise the lye from the vat and pour it on to the heap, continuing so to do until the whole mass is saturated; we in general, however, raise the heap to a height of two, three or four feet, more or less, and then pour on a portion of lye, repeating this as the height of the pile is increased; this procedure obviates the necessity of lifting the whole of the lye to the full height of the heap.

The materials which we employ in making the lye, may be limited to the following, namely: cow, horse or hog's dung, or night soil, the urine draining from stables, and quick lime. The ingredients used to be intimately mixed with a sufficient quantity of saturated water.

Two of the kinds of animal dung we have found to answer as well as a larger number. A perfectly good lye will be made by taking one barrel each of two of the species of dung, two of the urinary drainings, one of quick lime, and about 50 barrels of saturated water which is then to be used as above explained.

What we claim as our improvement on Jauffret's method of forming manure by the rapid fermentation of vegetable fibres, is, first, the forming of the said vegetable matter into piles or heaps, without its being first immersed in the prepared lye, and the subsequently saturating the same by the pouring on the lye in the manner set forth.

CHARLES BAER,
JOHN GOULIART.

Witnesses,
Th. M. Abbett,
J. R. Abbett.

(Patented June 24, 1843.)

HEREFORDS—THEIR DAIRY PROPERTIES, &c.

MESSRS. GAYLORD & TUCKER—According to promise, I send you the result of my dairy; but it will not be any criterion to judge from, although the *actual weight* is taken from the book of Mrs. Sheldrick, who has kept a *correct* account of every pound made.

I had no dairy to keep my milk, in the month of February, when six of my cows were milking, and not one pound was made from them during that month. Three of them calved in January.

There were nine three year olds, two four, and one seven, milked during the month of March. I sold Cherry, a three year old heifer, on the 2d of April. From that time until the 1st of Oct., I milked eleven, at which time I sold my milk to the milkman. The following is a true statement:

From March 1st to Oct. 1st, Butter,	1,456½
35 Cream Cheeses, 3 lbs. each, equal	105 lbs. butter.
113 quarts of Cream, sold, equal to	113 lbs. butter.
	1,674½

My opinion is that the same cows next year, will make nearly double the quantity; for my first cow Lucy, 4 years old, calved Nov. 28, and made 8 lbs. 2 oz. last week; the only cow I have now in milk.

I quote from the Mark Lane Express, the following remarks from a speech made by the celebrated breeder, W. Fisher Hobbs, Esq., at the annual meeting of the East Essex Agricultural Society, Oct. 11, 1843:

"He could not, however, conclude without making a few observations as a successful candidate. It had frequently been his good fortune to appear before them in that character, but he never felt so much pleasure from the circumstances as on the present occasion; for it must be admitted on all hands, that except in a few instances, the competition was very good indeed, and in some cases very severe struggles.

"He was the more happy, as a great victory had been gained for a breed of cattle, for which he was a strong advocate. He did not think, as *judges* were generally *prejudiced* in favor of Short Horns, that Herefords could have been so successful as they had that day been.

"When he first became a farmer, he was *determined* to have a good breed of cattle. He first tried Short Horns, because he thought they were the *best;* and at a sale in Suffolk, he purchased several, better than which could not be obtained. He also purchased some Herefords, and kept them together for twelve months, and the result was most decidedly in favor of the Herefords. He was therefore compelled, *contrary to his own wishes*, to give up the Short Horns and take to Herefords; and he had from that time continued to do so, being satisfied that with his soil and climate, they paid the best. (*Hear, hear.*) He trusted the farmers whom he was addressing, would do as he had done, and judge for themselves what description of stock was best suited to their farms; and and when they were satisfied that they had a breed which would prove *most profitable* to them, he would advise them to *keep to them;* and if they came here to exhibit them and were occasionally unsuccessful, he would advise them to go home, with a determination of meeting with more success on a future occasion. (Cheers.")

Be it *remembered* that Mr. Hobbs gained the first premium as the owner of the best cow *in milk, of any breed, with a Hereford. What will the pen depressers of milking Herefords say to this?* Will they not have to put on their "studying caps" to find some endorsers for "*Youatt?*"

Again, I refer you to a sale of Herefords in the Mark Lane Express Oct. 30, page 12, the property of Mr. John Hewer. "An in-calf cow, Lady, by Chance, was knocked down for 100 guineas, ($500;) two year old Victoria, at 87 guineas, ($435;) yearling heifer, 40 guineas, ($200;) an aged bull, Dangerous, (the sire of some of my heifers,) 100 guineas; Lofty, a bull calf, 51 guineas, and several others at similar prices."

What does this say for the Herefords? Will it not "*prove*" *that some writers know nothing about them?* and will it not *teach some of them* to search for facts before they "*abuse the Herefords?*" I refer you again to a sale at Algarkirke, of an excellent herd of short horn cattle belonging to Mr. Rogerson, same paper for Oct. 23, p. 12: "Nonsuch, two years and six months old, was knocked down at £27 10 s., ($136.68,) a very fine animal; others fetched from £20 to £25. Altogether, the sale has been highly satisfactory, and reflects equal credit on the breeder and auctioneer. *Young Spectator* was on the ground and was much admired."

Such comparisons as these are the *true standards* for other breeders, and it is gratifying to find such authority to substantiate the *facts* I have previously stated. I have an own sister to Lady, several half-sisters to Lofty, and two half-sisters to Victoria; and they came from the *bleak hills of Gloucestershire*, from the herds of William, John, and Joseph Hewer.

I do not think an "*extraordinary*" milker is a profitable animal for the farmer. If I can keep my cows up to from 6 to 8 lbs. each, for nine months, I will be perfectly satisfied; nor do I think that three herds in twenty, will do more, unless selected *entirely* for that purpose. We all know that a great quantity of milk requires to be forced with extra feed, and when such a cow is dried for the grazier or feeder, I want him to keep an *accurate* account of food consumed, and the *price* sold to the butcher.

One more statement, and I have done. I do not think there are many breeders in this country who are willing to give a remunerating price for a good animal. The butchers have far more spirit than *breeders*, and my object in future shall be to serve them. If breeders want this stock, let them go to England and fetch them; they will then know their *true* value. At present, I intend to make steers of all. Nor do I intend to show another animal for a premium in this country, so long as a combined prejudice exists.

I conclude by saying that the Hon. ERASTUS CORNING has rendered me every assistance with his purse, and deserves as much credit for this noble spirit as the *best* of the noblemen in England. They know agriculture is the only support of the country. Directing members of this country, know equally well the benefit they render it by such praiseworthy transactions, and such are the *true* supporters of a prosperous and enterprising country. It is such men only, that can place America in the exalted station she ought to occupy. WM. H. SOTHAM.

Hereford Hall, near Albany, Nov. 30, 1843.

IMPROVEMENTS ON MR. KETCHUM'S FARM, AT WESTPORT, CONNECTICUT.

Letter to SOLON ROBINSON *of Lake C. H., Indiana, from his friend* RICHMOND *of Staten Island, and State of New-York, containing an account of his visit to see the Improvements on the farm of Mr.* MORRIS KETCHUM, *at Westport in Connecticut, in the month of September,* 1843.

YOUR last letter received through the Cultivator, (October number, 1843, p. 160,) was read with pleasure and regret; with pleasure, that you was alive and well, and had made me the medium of communicating further agricultural information, valuable to the farming interest; with regret, that you had been removed as Post Master when the situation enabled you to do so much for the country, without injury to the government or to individuals. Were I a Tyler man, I should remonstrate against an act so injurious to agriculture, and petition for a restoration.

In reply to your last, I shall now notice an agricultural visit recently made to a rocky part of Connecticut.

It is agreeable for farmers distant from each other, occasionally to interchange visits, compare notes, examine improvements, and observe the difference of cultivation caused by climate, soil and situation. Mr. Ketchum's visit to Oakland farm was reciprocated by me in Sept. 1843, when several days were spent very agreeably in partaking of the hospitalities of his family and leisurely walking over hill and dale, among rocks and water courses, along well cultivated fields of intervale, and among other things, admiring his beautiful stone walls, reclaimed peat bog, and his excellent stock of animals.

Westport is a large village, situate about 45 miles east of the city of New-York, or 55 north-east of Oakland farm on Staten Island, from whence I write. It is near the mouth of Saugatuck river, which empties into Long Island Sound, and once gave name to the village as well as the stream on which the village is situated, but the inhabitants, not pleased with this euphonious Indian name, caused it to be supplanted by Westport.

About a mile and a half north of Westport, lies the excellent farm of Mr. Ketchum, on which, within a few years, he has made extensive improvements, which struck me very forcibly, having previously been over the same ground in 1838. It is situated partly in the valley of the Saugatuck, and partly on the hills which skirt its eastern side, from which, and his house, is a delightful and picturesque view to the west, overlooking his whole farm and extending to the hills far beyond the valley.

The farm contains over two hundred acres, and is now productive in grass and grain, although some years ago when the owner was younger, he cultivated it without success, having at the end of the year, after unsparing toil and labor, made about money enough, as he used facetiously to say, "to buy a pair of boots." Then the farm was exhausted by cropping without manure, under the cultivation of previous occupants, and so it remained a number of years. Now, however, it is greatly altered, some of it is under high cultivation, and all more or less improved.

Mr. Ketchum's farm is divided into three parts by public roads. 1. That portion lying south of the old road leading from Saugatuck through Green's Farms to Greenfield, contains about 75 acres, and is very rocky. 2. A portion containing 35 acres on the north and westerly side is separated from the main body of the farm by the turnpike road from Westport to New Fairfield, and is part rolling and part level land, but all susceptible of cultivation. This is the poorest part of the farm, being of a stoney and gravelly soil, exhausted and not yet taken in hand by the owner, as it is the most remote from his residence and farm buildings. 3. The main body of the farm lies between the old road to Greenfield on its southerly side and the turnpike on its northerly side, while a cross road passes along its entire westerly front, making it a compact quadrangular body of land, containing more than a hundred acres, admirably situated for access to all its divisions from one field to the other, or from the three public roads which are always in good order.

This farm is in a primitive region. The rock of the hills is gneiss, but the plain land is a gravelly diluvion, as well as the surface of the hills where the base rock is covered. There are two small streams which water the farm, and are seldom known to be entirely dry. One has its origin in a small peat swamp in the second or remote section of the farm, and after crossing the turnpike, meanders through several acres of similar swamp, and waters several fields which are not swampy, and after leaving the farm, finds its way into the Saugatuck river. The other stream arises from springs at the base of the rock in the first section of the farm near the old road, and after running around the house and barn in the central part, wanders through the lawn in front of the dwelling: thence taking a course for several rods by the side of the road, again passes through a field in the central part of the farm, and joins the other stream a short distance before it leaves the possessions of Mr. Ketchum.

A large farm so situated, and near a large and thriving village from whence is a water communication to the New-York market, ought to be a highly valuable and productive one. But it should also have a wealthy owner, whose resources may be liberally applied to renovate and improve it. And such is its present proprietor, who is doing much to put it in a high state of cultivation, as well as in beautifying and ornamenting it. He commenced his improvements in 1838, and has been annually since adding thereto, though he has much yet to accomplish in bringing up some of his old fields; but this he will soon do, as he has found a mine upon his farm, which will enable him to put all his fields into good heart, as it has already a part of them. This mine is in the peat bogs.

Most of the improvements are on the central or main, and best part of the farm. In 1838, there was a small ancient farm-house and two small barns on the premises. That year he removed the old house and the barn, which stood near it, and erected on the same site a handsome, tasty wooden dwelling house, but not an extravagant one. At a proper distance was also erected a barn, 60 feet by 30, and a hay-house, 75 feet by 25, part of which was appropriated as a stable, carriage house, and corn-cribs. A little to the northward of his barn, was also built that year a snug two story frame house for his principal farmer and farm laborers. These improvements I saw progressing in 1838.

Since then he has converted a swamp in the rear of his house into a garden, by ditching, draining, and covering with soil. In front of the dwelling two fields have been thrown into a lawn of about ten acres, ornamented with fruit and forest trees of foreign and domestic growth, and with annual and perennial flowers and shrubbery. The stream which runs through the lawn is now confined by stone embankments, and prevented from overflowing as formerly, when a part of the lawn was an alder swamp, now converted into dry and arable land. A part of the lawn was a stony and gravelly bottom, with several out-croppings of the gneiss rock, around which have been planted groups of trees in vigorous growth, among which I observed some thrifty young yellow locust trees (Robinia pseudo-acacia) raised from the seed in 1838. The whole lawn, which at the time of my former visit was poor and unproductive, is now in good heart, and during the last season (1843) notwithstanding a severe drouth, produced two crops of grass. No expense, however, has been spared to convert a rough unsightly piece of ground into a beautiful and agreeable promenade, where, at my visit in September, it was delightful to see the children amusing themselves under the shade of the trees, climbing the rocky knolls, or romping and racing along the serpentine carriage road which runs through the lawn, and emerges into the public road at the farther end.

But the greatest object of attraction to the farmer in viewing this lawn, is the enclosure on three sides of it, consisting of huge stone walls. On the northerly side is a wall the most beautiful I ever laid my eyes upon, put up without mortar. It is as straight as a die, smooth,

fair, and gently battering on both sides, four and a half feet at the bottom, six feet above ground, and two and a half feet on top. The wall at the westerly end is not so high as the other, and is banked up on the lawn side. That on the southerly side is a curiosity. It runs along the public road some forty rods, and is built with huge rocks, and its outer face is straight and battering, though not so smooth and fair as the wall on the opposite side of the lawn. It has a base of six feet, is of the same height, and in addition thereto is capped with large rocks, with their rough ends overhanging the wall, like a coping, giving it an unique appearance. It is banked up on the inside, and you may walk on the rough coping, but it is not an agreeable place to promenade. From the outside it is impossible for man or beast to climb over.

If you should ask the reason of constructing such heavy stone walls, the answer would be, the abundance of rocks and stones, and the determination to dispose of them to the best advantage. You may easily imagine the original roughness of the land, when such walls were constructed of materials collected from a few surrounding acres.

But of all structures of the kind, there was one other on the first and most rocky section of the farm, that beats every thing I ever saw. It was a wall about forty rods in length, having a base of six feet, a height of six, and was six feet wide on the top. Most of the materials were huge rocks, and yet both sides of the wall were handsomely faced, and well put together, and what is remarkable, they were all taken from a portion of about three acres of the adjoining lot, now in arable condition, which it never was before.

These stone walls have been costly improvements, and it is due to Mr. Ketchum to say that he has done wonders. In the accomplishment of these undertakings, he employed a Mr. Burr Wood, whose skill and tact in handling rocks is superior to any man in the rocky regions of Connecticut. He moves his rocks, and builds his walls without a frame or line to work by, trusting alone to the accuracy of his eye; and these of which I have written, I examined with care, walking by them and over them, and they were found as straight and as smooth, and to have a batter as regular as if a line and bevel had been constantly used in their progress of erection.

Another improvement, however, has been made on the farm, of a more productive or profitable character. He has reclaimed a quaking peat bog of about six acres, and in 1843 cut two crops of grass from it. This bog, in 1838, was partially drained, and at that time a pole could be pressed down perpendicularly from ten to fifteen feet, in some parts of it. That year also, he had an ox mired in it, and the animal was so injured in getting him out, that he was ever after disabled from work. The bog is now so firm that a loaded team can be driven over any part of it. Its surface was formerly covered with tussacks of coarse bog grass, and patches of briars and wild roses. In August, 1838, its surface was burnt over with advantage, and many of the briars afterwards pulled up by the roots. But Mr. Ketchum found that it required more draining; and taking a hint from an agricultural speech of the Hon. D. Webster, after returning from Europe, about draining lands there, he made the application. Accordingly, he commenced ditching on the margin of the bog, and continued it all around, arresting the supply of water from the adjacent higher ground, and conveying it by the outlet which carried off the water of the ditches previously made. A year had not passed away before he found the surface dryer and firmer, and the old ditches mostly dry. He then pared the whole surface, carting away the bogs and roots, and piling them on the adjacent upland, where they were afterwards burnt, producing some two thousand bushels of ashes. In making the new ditches, and deepening the old ones, several hundred loads of black peat were collected in heaps near the pared bogs. After exposure to the winter, the peat crumbled into a fine black mould, and it was then incorporated with lime and the ashes of the bogs, making a rich and valuable compost, containing humus made soluble by potash and lime.

The peat bog so denuded of its surface, nevertheless became dry and firm, and was seeded with timothy, (*Phleum pratense,*) and in September, 1843, I saw men cutting the second crop of grass that season. It is now a valuable meadow, and will continue so for a long time. The compost made with the peat and ashes and lime, was given as a top dressing to an adjoining field of clover, and it was then also fit to be cut a second time.

The expense of reclaiming this peat bog of a few acres, has been considerable; but the outlay has been more than repaid by the quantity of rich manure made by the operation, without calculating the conversion of a bog into arable land. Of this fact the proprietor feels perfectly satisfied. He has, this autumn, (1843,) sowed a field with wheat, manured with his peat compost, and he assures me, since my visit, that it promises well, judging from its rapid growth and fine appearance after coming up. Here then, we have wheat growing upon a soil which for many years past would not produce that grain, but would grow poor crops of rye, or oats, or buckwheat. The value of this improvement to Mr. Ketchum is not limited to the few acres reclaimed, or to the manure made. It has taught him how he can reclaim ten acres more of the same kind of land, which he has, and therefrom make an inexhaustible supply of manure for future application. This alone, is of the utmost importance in a part of the country where little or no manure is to be bought, and where scarcely an individual makes enough to feed his crops well.

Mr. Ketchum has also made improvements on those parts of his farm where there are no rocks, by good and substantial fences. Woodland in that part of the country, is scarce, and fencing timber dear. He has a long line of fence with red cedar posts, which I sent to him from Staten Island; and he showed me a quantity of sawed oak posts, imported from Chenango county in this state, which he had laid up in cross piles to season, and he intended to char the lower ends.

One of the disadvantages of this farm is the want of timber. The proprietor, however, has a tract of woodland, six or eight miles distant, in a region called the "*Devil's Den,*" where even the most industrious Yankee cannot glean a living. It accordingly remains in its natural state of forest, which, when levelled by the axe, is left to grow again. It is a great curiosity to visit the *Den,* where it appears as if his Satanic Majesty had amused himself in breaking into fragments the gneiss rocks and heaping them in irregular and confused masses. Geologists would say that such appearances are caused by an upheaval. If upheavals are produced by central fires, as they admit, then the people of Connecticut are not far out of the way in attributing the reckless breaking, scattering, and piling of the fragments of rocks at the Devil's Den, to the agency of the Old Boy.

Appropos as to land destitute of timber. Would it not be advantageous to cultivate the yellow locust on your prairies, for shade, for ornament, and ultimately for fencing timber? Locust trees can be raised from the seed in a few years, and by soaking the seed in water heated to boiling, they will come up almost as soon as beans. I have done so both here and in New-York, and seen the same method practiced on Long Island. Red cedar also, (*Cupressus thyoides,*) might be valuable to you. If so, I can send you any quantity of the seeds, which are small and are here called cedar plums. The trees abound in my neighborhood, springing up spontaneously from the seeds, which pass through the alimentary canal of birds which feed upon them.

Mr. Ketchum's stock of cattle was not as large as his farm would warrant; but it was select and excellent, havsome full blooded Durhams, and crosses with the Devons. Among them he pointed out a young Durham cow, that gave a large pail of milk morning and evening, was a precocious animal of large growth, though only sixteen months old, and had a calf at fourteen months, having contracted too great an intimacy with a yearling bull, contrary to the wishes of its owner. In October, 1843, some portions of his fine stock were sent from the field, without any previous preparation, to the Agricultural Fair at Bridgeport, and obtained three several premiums, being allowed by good judges to have been among the

best cattle in Connecticut, and the very best in Fairfield county, in which the farm is situated.

His stock of swine also, was not large; but the animals were of a superior breed, being full blood Berkshires, from the stock of C. N. Bement of Albany. He has a Neapolitan sow, which he has had crossed with the Bershire. This breed of hogs is said to be very fine and delicate. Coming from a warm climate and being without hair or bristles, it is questionable whether it can withstand our climate. I apprehend it will degenerate here, before it becomes acclimated, and then it will probably recover its external coating which nature has given to all animals in cold climates to keep them warm.

Westport, although a short distance east, and a little north of Staten Island, has a severer climate, and in consequence of early frosts the corn crop is sometimes injured, and hence the Dutton variety has been introduced on account of its early maturity. On Staten Island we raise the large white flint corn, which is seldom injured by autumnal frosts, although it requires three or four weeks longer to mature than the Dutton. This variety of corn does not thrive here, in our stiff clayey soil.

Enough for the present. With regard and esteem, from yours, RICHMOND.

Oakland Farm, Staten Island, Nov. 14, 1843.

EXPERIMENTS IN MANURING GRASS LANDS.

EDITORS OF THE CULTIVATOR—By recurring to page 164, of the 9th vol. of the Cultivator, you will find some experiments of mine on manuring grass lands. On the 5th of 6th mo. last, I staked two squares of exactly one square rod each, adjacent to the five mentioned as above, and numbered them 6 and 7; on No. 6, I sowed 1 lb. of dry sulphate of soda, and on No. 7, one quart of common salt. No. 1 to 5, inclusive, have had nothing applied to them since last year, and therefore present the *second* year's result of the manures then applied to them. The following is the result of their weights, taken immediately after cutting, on the 1th of 8th mo. last.

No. 1.	53¾ lbs.	No. 4.	54½ lbs.
2.	61	5.	55½
3.	53½	6.	45½

No. 7. ..... 47½ lbs.

From this, it appears that notwithstanding the valuable effects of salt and sulphate of soda in England, when applied to grass lands, there was 8¼ *less* grass on the square manured with the sulphate of soda, and 6¼ lbs. *less* on the square manured with salt, than on No. 1, which had received no manure whatever; in other words, they injured the land by these amounts. No. 2, which was manured with ashes last year, you will perceive still shows a marked superiority over all the other manures. *Stockport, 11th mo.* 26, 1843. N. N. D.

LUCERN.

"LUCERN," says Nicholson, "makes the sweetest and most fattening food in the world for cattle;" and Drown says, "it is undoubtedly the most productive, and that which comes sooner into use [in the spring] than any other of the artificial grasses. From three to five tons of excellent hay can be cut to the acre; and with the best cultivation and plentiful manuring, nine tons per acre have been had in a season. It is supposed that our dry warm summers are more favorable to its growth than the cool and moist ones of Great Britain; and [Chancellor] Livingston has obtained greater products than those mentioned by British writers." The plants often last from eight to ten years.

Lucern requires two or more years before it attains its full growth; and therefore, as Loudon justly remarks, "it is ill adapted to enter into general rotations." For soiling, however, it is admirably adapted, as it may be cut at least four times in a season, "giving no taste to the milk and butter,"* and "one acre is sufficient for three or four cows."† I have seen it planted near Philadelphia, in rows or hills, and the intervals plowed twice a year. This culture greatly increased its vigor; but if it be sown broad-cast, and light harrows be used early in the spring, after the plants have become strong, treating them also with compost or poudrette, the crop could be more conveniently managed. In the former case, the sickle was employed; but the latter method would admit the introduction of the scythe.

"The soil for Lucerne," says Loudon, "must be dry, friable, and inclining to sand, with a subsoil not inferior [in quality.] Unless the soil be good and deep, it is in vain to attempt to cultivate lucern;" and yet I have a patch of several square rods, sowed broad-cast, in the spring of 1841, which is doing well. The seed was a present from M. B. Bateham, of Rochester; and as it had to be sown somewhere, I selected a loam, rather heavy, the best spot I could find that was mellow, though hardly dry enough for wheat. I have been, therefore, agreeably disappointed. It has resisted the frost well, which I scarcely expected, and far exceeds the adjoining clover in growth.

This experiment has satisfied me that farmers might find it very convenient and profitable to appropriate some half acre of land adjoining their stables or barn-yard. Throughout the whole summer, horses from the plow or from the road could be promptly provided for; and a bait for each milch cow, in the evenings and mornings, would be paid for in the pail. D. T

Greatfield, Cayuga Co., 12th mo. 16, 1843.

* Drown's Farmer's Guide.

† Loudon's Encyclopædia of Plants.

BOTTS' STRAW CUTTER.

MESSRS. GAYLORD & TUCKER:—My attention has been attracted to an article in the Dec. No. of the Cultivator, from your distinguished correspondent Mr. Bement, in which he has done me the honor to notice the straw cutter invented by me, and exhibited at the Agricultural Fair of New-York, in 1842. I am much obliged to Mr. Bement for the commendations he has bestowed upon the machine, considering the unfavorable circumstances under which it was exhibited; but in speaking of it, he uses an expression which I feel bound to notice, as it may lead to misapprehension on the part of some of your widely diffused readers. He says, "it appears to be a machine long sought for, viz. one that will cut hay, straw and *cornstalks*." Now, this machine was taken from Albany, *put in good order*, and exhibited a few weeks afterwards at the Fair of the Philadelphia Agricultural Society, and at the great Fair of the American Institute in New-York. At both places it bore away the palm from all competitors, and at the latter it received a silver medal on account of its superiority as a hay, straw, and *stalk* cutter. I believe it is the strongest, simplest, and most efficient straw cutter, and better adapted to the capacity and management of common operatives, than any other machine I have ever seen; and in this opinion I am supported by testimonials from hundreds of the most judicious farmers in Virginia and the southern country. But I have received several orders for this cutter from gentlemen in the south, because of its supposed adaptation to the cutting of cornstalks, and I have uniformly declined to send it under such circumstances, because I knew it was fitted for no such purpose. The truth is, the cornstalks of the north and south are very different things. You grow your corn very thick, and your stalks are hardly larger than your thumb, whilst ours are frequently as large as your wrist.

This knife, although intended for straw and hay, on account of its great strength, operates very well on our *tops*, (the part of the plant above the ear,) and *your stalks*. But I have never seen but one knife adapted to cutting the lower part of the stalk of the southern country, and that is one which I have lately gotten up for the express purpose, at the request of a gentleman, upon an entirely new principle, viz: that of cutting the stalk obliquely, by means of a powerful knife descending upon the layer of stalks so as to make a very obtuse angle with it.

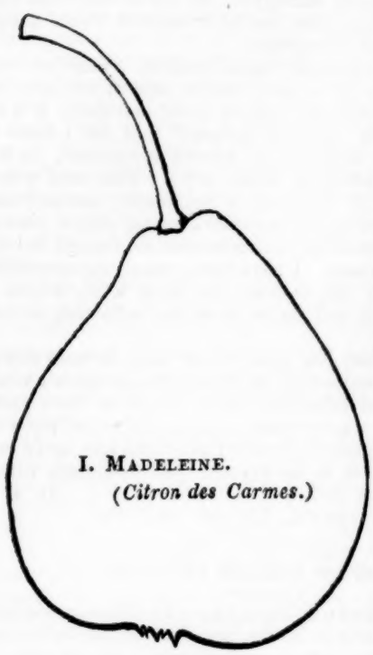
This knife will also cut straw and hay, as well as stalks, but requires to be fed by hand, whilst the one first spoken of is much more rapid in its execution, and is furnished with a very perfect feeding apparatus.

The cutter recommended by Mr. Bement is sold at *thirty* dollars, the stalk cutter proper at *ten* dollars.

Richmond, Va., Dec. 15, 1843. C. T. BOTTS.

FIGURES AND DESCRIPTIONS

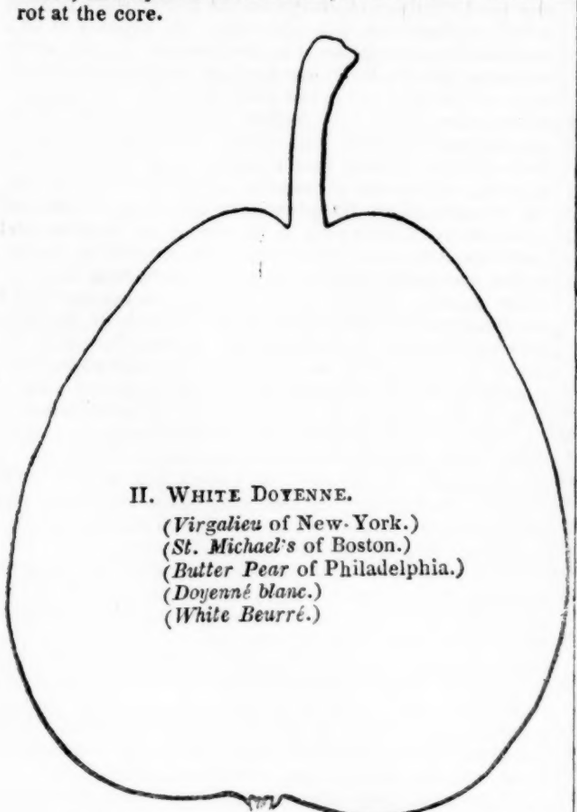
Of Five choice varieties of Pears, by A. J. Downing.



I. Madeleine.
(*Citron des Carmes.*)

The Madeleine Pear is the best *very early* pear in cultivation; as, though inferior to the Bloodgood and Dearborn's seedling, its earlier maturity renders it very desirable in every collection. Its name arises from its ripening in France about the 22d July, which is the Fêté de Sainte Magdalene. It commences ripening here about the middle of July.

Fruit rather small, turbinate, narrowing gradually towards the stalk, where it thickens a little. *Stalk* from 1 to 1¾ inches long, slender, a little curved, and rather obliquely inserted. *Eye* very slightly sunk. *Skin* pale green, becoming a little yellowish, with sometimes a faint blush when fully ripe. *Flesh* white, melting, with an abundance of sweet and rather vinous juice. A good bearer, but the fruit must be picked a few days in advance, and ripened in the house, or it is rather liable to rot at the core.



II. White Doyenne.
(*Virgalieu* of New-York.)
(*St. Michael's* of Boston.)
(*Butter Pear* of Philadelphia.)
(*Doyenné blanc.*)
(*White Beurré.*)

II. White Doyenne. This celebrated old fruit, known by so many names in various parts of the country, (and by at least twenty more in different portions of Europe,) is indisputably one of the finest of all pears. On the sea coast, or within the direct influence of the salt breezes, it often fails to produce good fruit; but in the interior, it is universally cultivated, and produces regular and most abundant crops of the most beautiful pears. Its fruit is largest and finest on strong loamy soils approaching clay. It ripens about the middle of September, and remains in perfection for four or five weeks.

Fruit above medium size, roundish oblong, narrowing most towards the stalk. *Color* pale yellow, dotted with a little russet, and often showing a fine blush on one side. *Stalk* ranging in length from three-fourths to one and a half inches, but generally about one inch long, rather strong and straight, curved a little at the point of junction with the tree, and inserted in a slight depression. *Calyx* very small, with closed segments, and set in a smooth, very shallow basin. *Flesh* white, fine grained, exceedingly melting, buttery, and delicious. If picked from the tree when it commences ripening, and carried to the fruit room, this pear may often be retained in fine perfection till the first of November, and taking into consideration its productiveness, beauty and fine flavor, it is scarcely surpassed by any of the newer varieties.

III. Winter Nelis.
(*Bonne de Malines.*)

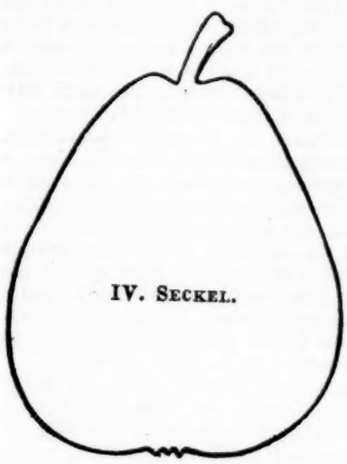
III. Winter Nelis. The Winter Nelis, of delicious flavor, melting, and very juicy in the months of December and January, proves to be one of the finest dessert pears. It was raised by M. Nelis of Mechlin, succeeds admirably in our climate, and is not inferior to any other of the new Flemish winter pears.

Fruit of medium size, roundish obovate, narrowing with a slight hollow towards the stalk. *Color* yellowish green, pretty well covered with streaks of gray russet and russet dots. *Stalk* an inch and a half long, inserted in a narrow cavity. *Calyx* open, with firm short segments, and set in a shallow basin. *Flesh* yellowish, fine grained, buttery, melting, sugary and high flavored.

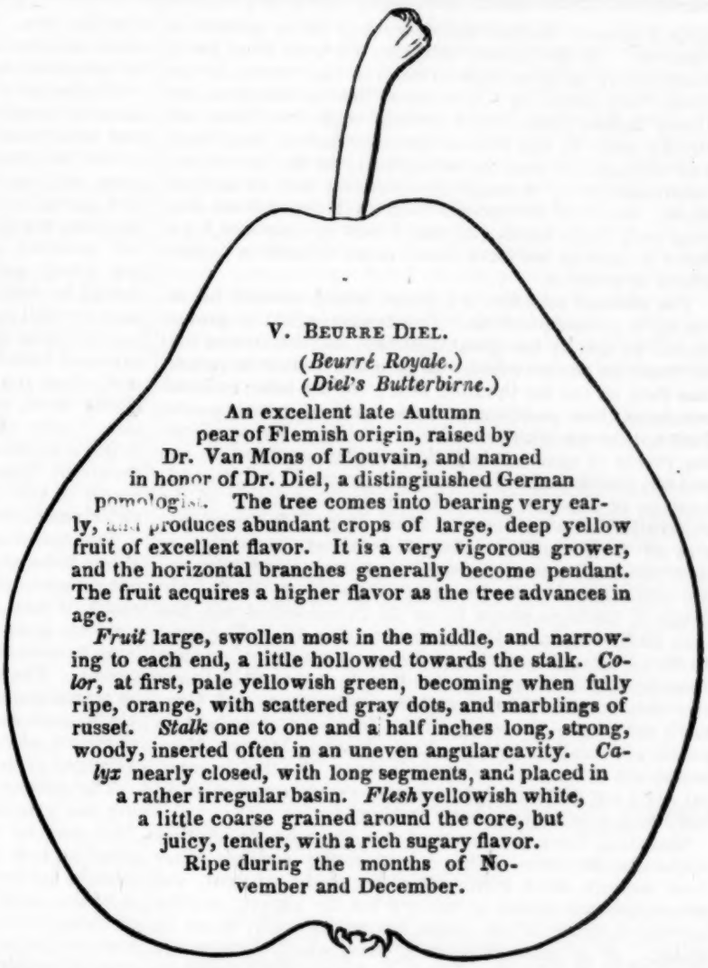
IV. Seckel. This unique pear, the original tree of which, is, we believe, still growing on the farm of Mr. Seckel, near Philadelphia, is admitted to be the *highest flavored* pear known in either hemisphere, "possessing a high vinous aroma," says one of the highest European authorities, "which can scarcely be compared with any thing in fruits." It forms a very symmetrical bushy tree of rather compact but very healthy growth, producing its fruit in clusters, chiefly at the ends of the branches, and bearing very regularly and abundantly. No garden, however small, should be without this exquisitely flavored dessert fruit.

Fruit small, long obovate, a little compressed towards

the stem. *Color* dull greenish brown, with a russet-red cheek. *Stalk* half to three-fourths of an inch long, rather obliquely inserted in a very slight depression. *Calyx* small, partly closed, placed nearly on a level with the surface. *Flesh* juicy, tender, melting, with a high and agreeable aroma, and a peculiarly spicy and rich flavor. It is in perfection from the first of September to the middle of October. To obtain fruit of large size, the trees of this variety should be well supplied with manure, and the branches moderately thinned by pruning.



IV. SECKEL.



V. BEURRE DIEL.

(Beurré Royale.)

(Diel's Butterbirne.)

An excellent late Autumn pear of Flemish origin, raised by Dr. Van Mons of Louvain, and named in honor of Dr. Diel, a distingiuished German pomologist. The tree comes into bearing very early, and produces abundant crops of large, deep yellow fruit of excellent flavor. It is a very vigorous grower, and the horizontal branches generally become pendant. The fruit acquires a higher flavor as the tree advances in age.

Fruit large, swollen most in the middle, and narrowing to each end, a little hollowed towards the stalk. *Color*, at first, pale yellowish green, becoming when fully ripe, orange, with scattered gray dots, and marblings of russet. *Stalk* one to one and a half inches long, strong, woody, inserted often in an uneven angular cavity. *Calyx* nearly closed, with long segments, and placed in a rather irregular basin. *Flesh* yellowish white, a little coarse grained around the core, but juicy, tender, with a rich sugary flavor. Ripe during the months of November and December.

CULTURE OF FRUIT.—No. I.

WE propose to furnish our readers occasionally with directions for the cultivation of fruit, embracing every thing of consequence from the apple to the strawberry; with the culture adapted to each, and a selection of the most desirable varieties, for those who have but little land, as well as for the farmer's orchard. We intend to furnish one number of the proposed series once in each month. To those who have large fruit gardens and orchards, every thing relating to their management, every thing by which their culture may be improved, must of course be a matter of importance; and to those whose whole farm perhaps consists of but half an acre, or even less, and there are many such among our subscribers, it certainly cannot but be an object of interest to make the best of that little. To such, it is indeed far preferable to have fine, well bearing trees, of excellent and seasonable varieties, than to have their limited grounds occupied by trees whose only product is small unpalatable fruit.

No one, however limited his means, or however little the land he occupies, should be deterred from the cultivation of *first rate fruit*. A tree of the best variety costs but little more than the worst—and will grow in the corner of a small yard, as well as on the richest domain. A dozen trees of the finest selection, will cost but three or four dollars, and may be properly transplanted for half that sum. In five years, if well taken care of, they will afford a return for the labor bestowed; and few would then be willing to part with them for five times their cost. The proprietor of the village garden, will find many pleasant hours of recreation in their management; and an agreeable and useful occupation will be furnished to his children. Indeed, the culture, propagation by budding and grafting, and a knowledge of the diseases of fruit trees, should be considered as an indispensable accomplishment in a young man's education.

The first thing to attend to in planting fruit trees, is the *selection of the ground*. This, it is true, is often in a great measure beyond our control; but still, even in a quarter of an acre, if there is any difference in the soil, there is some choice; as each kind may be more nearly furnished with its appropriate soil, than where no such attention is given. Whenever, therefore, a choice can be made, the *apple* should have ground which is rich and moderately moist; the *pear, cherry, apricot* and *peach*, a deep loose soil, more sandy for the cherry and peach; and the *quince* a rich moist soil. But if the ground be of tolerable fertility, much more depends on a proper preparation by *digging and filling the holes* than any selection.*

There is probably no natural soil in the state well adapted to the proper extension of the roots of fruit trees, without previous loosening by digging. We have seen peach trees transplanted into soil naturally loose, linger year after year with little growth; while on the other hand, trees set in a heavy soil, properly prepared, have

* "For a Fruit Garden, a western aspect is generally best, because it is the least subject to sudden transitions of temperature. Severe vernal frosts often prove injurious, or otherwise, according to the weather that follows. If the sky be overcast in the morning, and the air continues cold, little or no damage occurs; but when the sun breaks out warm, the injury is greatest; and the most so, when the trees are most exposed to his rays. For this reason, a hill or a wood on the east side, may prove very beneficial.

"A northern aspect would go far towards insuring regular crops of the peach, nectarine, apricot, if protected from the sun and warm winds by a belt of evergreens. On sandy soils especially, the reflected heat is often sufficient in autumn or winter to *start* the buds; and snow and ice have been successfully heaped round trees to prevent this disaster; but a northern aspect would probably render such labor unnecessary.

"Dry firm ground should be chosen, preferring a sandy or gravelly loom, though clay will do with good culture. Wet, peaty, or spongy soils are apt to be frosty; for the radiation of the heat is much greater than from firmer lands."—*D. Thomas, in Trans. N. Y State Ag. Society.*

made a growth the first shoots an inch and a quarter in diameter. In the former instance, the trees were put in holes barely large enough to receive the roots; in the latter, they were dug six or seven feet in diameter, and fifteen inches deep, filled chiefly with the loose soil thrown out. In the former the roots had to work their way through the undisturbed subsoil; in the latter they penetrated freely through the artificial bed of mellow earth. Much of the success in growth depends on digging very large holes, (at least 7 feet in diameter,) yet there is nothing we have found more difficult to induce others to practice.

The distance asunder, is a point which should be attended to in transplanting. It is desirable that no ground should be lost by too great distance; and not less so, that the trees be not crowded. It is much better however, that they be too far than too near; for the same evils result from close planting as from want of pruning—the fruit will be small and of inferior quality. But by allowing plenty of space, it will be properly exposed to sun and air, and become fine and well grown. Another advantage in distance is, that it admits more freely of the cultivation of the ground for other crops. Different species of fruit require different distances, according to their respective size of growth. As a general rule, apple trees should never be nearer than 25 or 30 ft., but better if further—pears 15 or 20 ft.—peaches not less than 20 ft.—apricots 15 ft.—plums 12 or 15, and quinces 10 ft. Different *varieties* of the same species often vary considerably in size; thus the Bough apple and Tallman sweeting are small trees, and the Spitzenburg and Pennock are large—the early white Nutmeg and early Ann peach are small, while the Early York and Grosse Mignonne are more than twice their size. But this in general need not be taken into account, as mere varieties do not commonly differ greatly in size.

Guarding from the attack of the *Curculio*, is another important requisite. This insect rarely touches other than smooth *stone* fruit. The nectarine, apricot, and plum, are most liable to injury; but the cherry, and the earlier varieties of the peach frequently suffer from its attack. It is most effectually destroyed, if hogs are allowed to feed under the trees during the season the punctured fruit falls; for as this immature fruit contains the larvæ or worm for next year's insect, it is eaten and destroyed by the swine. Hence all smooth stone fruit should be placed in a separate part of the fruit garden, to be enclosed by a temporary fence, for confining the necessary number of hogs. Poultry, and especially geese, will accomplish in some degree the same end.

An important point in selecting varieties, is to furnish a *regular succession in ripening*. The whole value of some kinds of fruit, depends almost entirely on their *time* of ripening. Thus, if the cherry matured its fruit with the peach, it would be but little esteemed. The importance of early varieties of the best species is therefore obvious. A proper selection will yield a constant supply of some kind of fruit throughout the year. Strawberries may be had from the latter part of the fifth month (May,) till winter.* Raspberries for six weeks preceding wheat harvest. Cherries, from early in sixth month (June,) till the same. Apricots and plums commence ripening a little before harvest, the former continuing for a few weeks, the latter three months. Peaches may be obtained from wheat harvest till autumnal frosts. Pears and apples will furnish a supply from harvest till the season of strawberries and cherries the following summer. Selections, as complete as practicable, of varieties for succession, will be given hereafter, when we come to speak of the various kinds individually.

Transplanting properly, is a point of the very first importance. When the trees are taken up, care should be taken that the roots are mutilated as little as possible, especially the small fibrous roots which contain the feeding mouths or spongioles. If large trees are to be removed, they should have all the larger roots cut off at a convenient distance from the center, the previous year, so that a new set of fibrous roots may be thrown out near the tree. Great care should be taken that the roots never become dry; to prevent this they should always be immersed in mud as soon as dug up, and then dusted with sand or dry powdered earth. Should they accidentally become too dry, cover the roots and most of the tree well in moist earth, till the moisture is restored; or should they be frozen, burying the roots before they can thaw, will save them by gradually extracting the frost. The holes in which they are to be set, should never be less than seven feet in diameter, and fifteen inches deep; turf inverted, or muck, should be placed in the bottom, and finely pulverized rich mold, but never manure, should be well shaken in among the roots, so that they may be well packed on all sides, leaving no cavities. A pail of water thrown in before the hole is quite filled, has been found highly beneficial in settling the earth well about the roots, and should never be omitted. Less fertile earth, may be filled in most remotely from the tree. After the tree is set, which should incline a little to the southwest to protect the stem from the hot sun, it should be braced with one or more stakes inclining towards it, and secured by tying. Or only one stake may be driven close to the tree, before the hole is filled.

Transplanting in *autumn*, is generally preferable. When trees are to be transported to a distance, there is not sufficient time in spring; and when the distance is small, if they are removed early in autumn, while yet in a slowly growing state, the spongioles which may have been broken off, will be replaced before the growth ceases. The only case in which fruit trees should not be transplanted in autumn, is where the more tender kinds, such as apricots and peaches, are taken to a colder region of country, in which instance there would be a danger of their destruction by the frost of winter.

The *subsequent management*, consists chiefly in keeping the ground well cultivated, and free from weeds. This may be effected in large orchards, by plowing and planting low crops; in small gardens by spading once a month, for several feet on each side of the tree. This is of the greatest consequence; nine-tenths of the losses of transplanted trees in many parts of the country, arise from neglected after-culture, and the destructive influence of contiguous shading crops, weeds and grass. And even where the trees live, a miserable stunted existence, instead of a healthy, vigorous, and free growth, is the result of such careless treatment. Sown crops of grain are highly detrimental.

To prevent trees being *gnawed by mice*, tread the snow repeatedly round them. This is an effectual remedy, and should not be neglected, as the labor is small in comparison with the loss of fine trees. Clean culture will promote the same end, by destroying the hiding places of these animals.

Insects upon the trunk, may be destroyed by whitewashing, or by washing with soft soap or weak lye.

Before closing our remarks for the present, we wish again to urge the importance of proper transplanting and culture. Many suppose that a period of fifteen or twenty years must elapse before an orchard is in a good bearing state. This opinion results from the general practice of digging small holes, and neglected after-culture. Proper management would bring most fruit trees in good bearing condition, in five or six years at farthest. Indeed, so much depends on previously preparing a broad deep bed of loose soil, that for obtaining a *speedy* growth of ornamental trees on a plantation, Loudon, (whose authority is first among the first,) greatly prefers a proper preparation of ground and planting *young* trees, to Sir Henry Stewart's celebrated method of setting out at once, *large* trees for this purpose.

The best methods, and essential requisites, for successful budding and grafting, pruning, and the remedies for the diseases and injuries of insects, will be treated of hereafter. J. J. T

Macedon, Wayne co., N. Y.

* We have seen a dish of them picked the first day of winter.

FATAL EXPERIMENT.

Our friend, D. Tomlinson of Schenectady, informs us that two of his neighbors having seen some publication recommending oil to kill caterpillars on fruit trees, applied oil to destroy worms on plum trees last spring, and all those trees died from the oil.

FOREIGN INTELLIGENCE.

We have received our files of the Mark Lane Express, Farmer's Journal, to Dec. 4, and only *sixteen days* from that date, are quietly reading them at our desk!

The weather, during the month of November, had been generally fine, and the seeding of the wheat crop had been finished under favorable circumstances.

We are indebted to Mr. Geo. W. Atwood, of London, for a copy of his commercial circular of the date of Dec. 2, 1843. In regard to business generally, the circular says:

"I am pleased to notice a general improvement in trade throughout the whole kingdom, and a gradual recovery from its long depressed state, with a prospect for its continuance, and that the consumption of many articles of produce is greatly increased."

Speaking of the preparation of American provisions for the English market, the circular says:

"Any thing that is done in provisions for the English market must be done *nicely;* too much care cannot be taken. Low prices, also, must be looked for; and unless it can be well done here, at a low figure, it cannot be advised."

AYRSHIRE CATTLE IN GERMANY.

The Journal of the Royal Agricultural Society of England, contains an account of a meeting of the Germae Land-owners, at Doberan, in 1841, from which it appears that an Association of Farmers and Land-owners had introduced into Germany the Ayrshire breed of cattle, and at this meeting the merits of this breed for *dairy* properties, compared with the German breeds, was considerably discussed. The results of such experiments as have been made, show the superiority of the Ayrshires. Baron Malzahn Sommerstoeff, stated that in the year 1837 he went into Scotland on the part of an Association in Pomerania, and bought 185 Ayrshire cows—and that he had found no breed that gave so much milk upon moderate food, as the Ayrshires. "Mr. Stanginer said that he had put two Ayrshire cows, and two of his own cows, (supposed to be from Angeln,) in a grassy paddock. The two Ayrshires gave 32¼ pots per day, the two others, 29 pots. The Ayrshires were the hardiest, but their milk was not richer."

DISEASE AMONG CATTLE.

The Mark Lane Express says, that a new and most violent epidemic has broken out in the counties of Cumberland and Westmoreland. The disease is an inflammation of the heart, and the cattle die within eight hours from its commencement.

PRIZE BREEDS OF SWINE IN ENGLAND.

At the last exhibition of the Royal Ag. Society, the Berkshire and Lincolnshire breeds obtained the highest prizes for hogs of a "large breed;" and the Improved Essex and Suffolk, took the highest prizes for "small breeds."

PREVENTION OF SMUT IN WHEAT.

At a late agricultural meeting in Sussex, Eng., John Ellman, Esq., related the following account of an experiment in preventing smut in wheat. He took four sacks of smutty wheat, sowed one sack of it with brine only, as strong as he always made it, to bear an egg as large as a shilling; he sowed another with lime only; he sowed the third sack with brine, strong enough to bear an egg, and then let it lay in lime all night; and the fourth he sowed without any thing. The result was as follows: Where the brine only was used, every now and then there was a smutty ear, still not many; where the lime only was used, there was much about the same quantity of smut; where the lime and brine was used, there could not be found a single smutty ear; and where nothing was used it was a mass of smut.

PROPER POINTS OF SHEEP.

A writer on Sheep-breeding, in the London Farmers' Journal, gives the following as the points of a good sheep:

"The head short, and without an angle or hollow; a tape passed from the throat round behind the ears, shall about equal a like girth from throat over the eyes and forehead; a quiet, but confident aquiline visage; ears woolly, short, well back and bent down, not rabbit fashioned; the neck not straight lined from the rump, but set on at the shoulders, at about a forty-five upward angle; not tapering over delicately towards the head, but thick, full, and fleshy along its whole length. Bladebones well spread, far back, and showing the chine above their working, which will produce a large, open, and heavy breast, not pitched downwards, as in the grey-hound, but rounded up to a frontage, like the fore keel of a ship. This enables the sheep to look you well in the face, and gives it a presence as if standing up hill, from whatever aspect it may be viewed. Capacious loin, spread-out hips, and well connected rumps, wide and fleshy in the twist, legs short, light boned, and under the sheep, not stuck out like four props to a hay-rick, and a well woolled belly."

Great preparations were being made for the annual Show of Fat Cattle, &c., at the Smithfield market, which was to take place in a few days.

PRINCE'S LINNÆAN BOTANIC GARDEN & NURSERIES,

FLUSHING, LONG-ISLAND, NEAR NEW-YORK.

PRINCE'S New Descriptive Catalogues *of the Linnæan Botanic Garden and Nurseries, at* Flushing, with very reduced prices, will be sent *gratis* to every *postpaid* applicant, and orders per mail will receive prompt attention. They comprise as follows, and the cost of publication was above $100:

No. 1, Descriptive Catalogue of Fruit Trees, Shrubs, and Plants.
" 2, Hardy Ornamental Trees, Shrubs, and Plants
" 3. Bulbous Flower Roots and Dahlias.
" 4. Green-House Shrubs and Plants.
" 5. American Indigenous Trees and Plants.
" 6. Garden, Agricultural, and Flower Seeds.
" 7. do do. in French.
" 8. Wholesale Catalogue for Nurseries only.
" 9. Catalogue of Roses, comprising above 600 varieties of every class. WM. R. PRINCE & CO.

Flushing, Dec. 6, 1843. 2t.

ENGRAVING.

N. ORR, having established himself in the above business, is now prepared to execute all orders with which he may be favored, and respectfully solicits a share of patronage.

Portraits of Animals, Architectural Plans, Views of Buildings, New Inventions, Patent Machines, &c. &c. executed at a moderate compensation and with undeviating punctuality.

☞ Office, No. 4, third floor, Exchange, Albany. January 1, 1843.

TO FARMERS.

THE subscriber is prepared to furnish farmers with Stone and Shell Lime, either slaked or unslaked, at a rate which will make it an object for them to use it liberally in the improvement of their lands, for which purpose he has sold large quantities during the past year. He refers to John Townsend, C. N. Bement, and W. H. Sotham, Esqr's. who have used his lime extensively. E. C. WARNER,

Albany, Dec. 1, 1843.—3t.* *Corner Market and Nucella-sts.*

POUDRETTE

OF the very best quality for sale. Three barrels for $5, or ten barrels for $15—delivered free of cartage by the New-York Poudrette Company, 23 Chambers street, New-York. Orders by mail, with the cash, will be promptly delivered, and with the same care as though the purchaser was present, if addressed as above to D. K. MINOR,

Dec. 1, 1843.—3t. *Agent.*

LINNÆAN BOTANIC GARDEN AND NURSERY,

Late Prince's, Flushing, L. I., near New-York.

THE new Descriptive Catalogue, not only of Fruit, but also of Ornamental Trees, Shrubs, and Plants, cultivated and for sale at this ancient and celebrated Nursery, (known as Prince's, and by the above title for nearly fifty years,) with directions for their culture, may be had gratis on application to the New Proprietors by mail, post paid.

The collection at this establishment is unrivalled, and prices generally very much reduced; and the proprietors flatter themselves that the Catalogue will be found to surpass in extent of information and usefulness, any thing of the kind ever before presented to the public; and to be worthy of a permanent place in the library of the Horticulturist. Orders will be promptly executed. WINTER & CO.,

Flushing, Nov. 13, 1843.—2t. *Proprietor.*

CONTENTS OF THIS NUMBER.

Address to Patrons of Cultivator, 9.
Agricultural Warehouses—In Boston, 19.
Agriculture—Negligence and errors in, 27.
Bees—Care of, by J. M. Harlan, 21.
Buildings—Dr. Lockwood's Cottage, described by T. M. Niven, 24
Butter—To make in winter, 22.
Cattle—Mr. Mason's Premium Cow, 10—Mr. Vail's Short Horns, 17—Dairy Cows, 11—Remarks on Wintering, 21—Cure for Black Leg, 24—Herefords, their Dairy Properties, &c. by W. H. Sotham, 32—Mr. Ketchum's, 34—Remedy for hard milking Cows, 14.
Cutting Fodder—Necessity for, with results of experiments, 18.
Clover Seed Machines, 12.
Cotton—Improved culture of, by Dr. Cloud, 28—Mr. Affleck's proposition, 12.
Corn Sheller—Goldsborough's, 15.
Cookery—To make biscuit, 22—To cook a bullock's heart, bacon and cabbage, tripe and souse, 23.
Fuel—Comparative value of green and dry wood for, 21.
Farms—Mr. Capron's premium, 14—Description of Mr. Ketchum's, Westport, Ct. 33.
Fruit—On the culture of, by J. J. Thomas, 37, 38.
Foreign Intelligence, 39.
Harrow—Drawing and description of Mr. Geddes', 16.
Horses—Rearing Colts, 10—Blind Teeth in, 23.
Indian Corn—Smut on, 15—Valuable varieties of, 13, 19—Sown Broadcast, 21—Calico, 11—Large crop, 11.
Luccrn—Culture of, by D. Thomas, 35.
Massachusetts—Improved Agriculture of, 18.
Manures—Coal Ashes, 15—Plaster, 15—Muck used in Mass., 19—Experiment with Green, by J. T. Worthington, 26—Bommer's, 31—Compost made by Mr. Ketchum, 33—Experiment in manuring Grass Lands, 35—Buckwheat plowed in, 12.
Maple Sugar—Apparatus for boiling, and directions for manufacturing, 22.
Monthly Notices, Acknowledgments, &c. 10, 11.
New-York State Ag. Society, 13.
Nut Grass—Description of, 27.
Oil—Injurious to Plum trees, 38.
Orchards—Clover not injurious to, 15.
Potatoes—To raise from Seed, 10—Disease in, 10, 20—Proper time for digging, 15.
Poultry—Profits of hens, 12—Nest eggs, 22—Dorkings, and Hatching Chickens by steam, 11—Caponizing, 12.
Pears—Figures and description of five varieties, by A. J. Downing, 36, 37.
Swine—Best food for fattening, 14—Large Berkshires, 15—Remedy for Barren Sows, 23—Large, 11, 13—Rapid fatting, 12.
Sugar Cane—Culture of, 13.
Straw Cutter—Mr. Bott's, by C. T. Botts, 35.
Sheep—Paular Merinoes, by H. S. Randall, 25—Going West, 18.
Silk Culture—Progress of, by A. Walsh, 14—Silk Goods in Ohio, 17—Factory at Richmond, Ia. 21—Length of Silk worm's Thread, 24—In Chautauque county, 26.
Tobacco—Information wanted on its Culture, 24.
Things important to be attended to, 20.
Young Men—Hints to, 20.

ILLUSTRATIONS.

Mr. Geddes' Harrow, ... 16 | Paular Merino Buck, ... 25
Goldsborough's corn sheller 15 | Cotton Plant, ... 28
Mr. Vail's Bull, ... 17 | Pears, ... 36, 37
Dr. Lockwood's Cottage, ... 24 | Sugar Boiling, ... 22

☞ ADVERTISEMENTS inserted in this paper, at $1.00 per square of 12 lines for each insertion—100 words make a square.

SUBSOIL PLOW.

THE prices of the Subsoil Plow described on another page of this paper, are as follows, viz: No. 1, $8—No. 2, $10—No. 3, $12, with extra points. These plows may be obtained at 176 Market st., Philadelphia, of D. O. PROUTY.

WILLIAM HOVEY'S SPIRAL REVOLVING HAY CUTTER.

THESE celebrated machines for cutting all kinds of fodder for cattle and horses, such as hay, straw, corn stalks, &c., are made and sold by the subscriber, at Worcester, Mass. Also sold by Ruggles, Nourse & Mason, at the Boston Agricultural Ware House, and by several of the dealers in the city of New-York.

Retail prices of machine, with 6 knives on cylinder, $15
do do 6 larger balance wheel, 20
do do 8 do geered, 25
To cut two lengths do 2 inches long, 16 knives, splendid, 30

These knives are so constructed, that by turning 2 or 3 screws a little, each knife can be taken off from the cylinder separately, and in case of failure, new ones can be put on or ground and replaced without disturbing the other knives; and by means of 2 set screws under the inner edge of each knife, the edges of the knives can be adjusted by those set screws so as to come in equal contact with the hide roller, as they revolve in connection. This arrangement of adjusting the knives on the cylinder, is considered of vast importance to the usefulness of those machines, and belongs exclusively to the subscriber. For further information on the subject, the subscriber would refer to a communication in the December No. of this paper, by Caleb N. Bement, Esq. Albany. WILLIAM HOVEY.

Worcester, Nov 27th, 1843

COFFEE AND SPICE FACTORY.

ELIJAH WITHINGTON'S Coffee and Spice Factory, No. 7 Dutch Street, between John and Fulton street, New-York. E. W. manufactures and has constantly on hand and for sale, the following articles, viz:

Green Coffee, Roasted Coffee, Ground Coffee, Domestic Coffee, Prepared Cocoa, Mustard, Whole Nutmegs, Ground Cloves, Ground Cinnamon, Ground Pepper, Ground Alspice, Ground Ginger, Ground Cayenne, Ground Nutmegs.

☞ Coffee roasted and ground for Grocers. Roasting 50 cts. per hundred. Grinding, 50 cts. per hundred.

The above named goods are sold on the most reasonable terms, and delivered to any part of the city or Brooklyn, free of expense.

N. B. Cash paid for Mustard Seed.

Dec. 1. 1843.—3*t*.

A BOOK FOR FARMERS,

MERCHANTS, Mechanics, Statesmen, Politicians, Lawyers, and the general reader. One of the most valuable works that has ever been issued from the American press, viz: *Webster's Speeches*, arguments in Court and Senate, Orations, remarks in Conventions and Senate, Reports, addresses before Agricultural Societies, Lectures, etc., by Daniel Webster—8th edition, 3 vols., 8 vo., cloth, with a portrait; also in Philadelphia Library style of binding, sheep. These volumes contain the ablest productions of Mr. Webster, up to the time of his becoming a member of the Cabinet. His speeches are models of argumentative power and commanding eloquence. They are rich sources of instruction also to the student of letters, of history, of finance, of the theory of government, and to the active politician, and should be owned by men of every station, sect, and political denomination. Published and for sale by TAPPAN & DENNET, 114 Washington st., Boston, and for sale by the principal booksellers throughout the country.

T & D. also publish *Life of George Washington*. By Jared Sparks, 1 vol. 8 vo—600 pages, with 14 fine steel and copperplate engravings, beautifully bound in rich cloth, stamped.

The *Life of Washington*, abridged, 2 vols. 12 mo. cloth. By Jared Sparks.

The *Works of Benjamin Franklin*, with notes, and a life of the author. In 10 vols. 8 vo. cloth and calf bindings. By Jared Sparks.

Life and Writings of George Washington, by Jared Sparks, 12 vols. 8 vo. cloth and calf bindings. *Nov.* 1.—3t.

FINE FARMS FOR SALE.

THOSE very superior Farms situated near Galway Corners, in the county of Saratoga, collectively known as the Earl Stimson Farm, will be sold cheap and on terms most accommodating to the purchasers as to credit. The property consists of about 340 acres, is so situated as to be conveniently divided into three or four farms, all having the necessary buildings, and will be sold together or in parcels, to suit purchasers. Each farm is properly divided into pasture, tilled and wood land, and is in the highest state of cultivation, fenced in the best manner and with the most durable materials. The property comprises among other buildings, a large and convenient hotel, which is a favorite resort of families in the summer on account of the superior healthiness and beauty of the country. The farming buildings of all kinds are most extensive and convenient for all the purposes of agriculture and the raising of stock. The premises also include a country store, a most eligible location for a country merchant, having been occupied as such for about forty years. It is within two hours drive of Ballston, Saratoga, and Schenectady. The farm is well known among leading agriculturists, and in the agricultural periodicals, as the Pattern Farm. For terms, &c., apply to J. OAKLEY,

Oct. 1.—tf. No. 75 Nassau street, New-York.

AGRICULTURAL PAPERS.

THE CULTIVATOR.—A new series of this well known and popular paper, was commenced on the 1st of January, 1844. The sheet was enlarged, and the form changed from a quarto to an octavo—each number containing 32 pages, instead of 16, as heretofore. Each succeeding volume (of which ten have now been completed,) of this work, has been received with increasing favor by the public. In its able correspondence, both at home and abroad—in its illustrations and mechanical execution, and the extent of its circulation, it is without a rival. No efforts will be spared to render the volume for 1844, superior to any that have preceded it. Price, $1,00 a year—Seven copies for $5.00—Fifteen copies for $10.

THE FARMER'S MUSEUM.—The proprietor of the Cultivator commenced the publication of a new Agricultural paper with this title, on the 1st of January, 1844. It is one-half the size of the Cultivator, and is printed and illustrated in the same neat and tasteful manner. Price, *Fifty Cents* a year for a single copy—*Fourteen* copies for $5—*Thirty* copies for $10.

*** Subscriptions for the above papers received by Postmasters throughout the country, and the Friends of Agricultural improvement generally are respectfully requested to act as Agents. Specimen numbers and Subscription papers will be sent to any person disposed to act as Agent.

*** All orders for the above papers must be accompanied with advance payments, and be addressed to

LUTHER TUCKER, Publisher,
Albany, N. Y.

Editors with whom we exchange will confer a favor by giving the above one or two insertions.

FROM THE STEAM PRESS OF C. VAN BENTHUYSEN & CO.